TECHNOLOGY DEPT.

First Copy

A National Newspaper for Every Branch of the Industry

Automotive Daily News

CARS · SHOP EQUIPMENT · TRUCKS · AVIATION · PARTS · ACCESSORIES · TIRES

Vol. 10. No. 1190 — Entered as second-class matter Aug. 27, 1925, Post Office, N. Y., N. Y., Under Act of March 3, 1879. — NEW YORK, FRIDAY, APRIL 18, 1930 — 10 Cents. $12 Per Year

PUBLIC LIBRARY
APR 24 1930

OVERLAND OFFERS FIRST STRAIGHT 8

New Car Sales in First Two Months of 1930 Top 4-Year Average by 5.8%

January Registrations Are Slightly Below Mean Since 1926, but February Pick-up Offsets That Loss

NEW YORK, April 17.—Retail sales of new passenger automobiles in the United States in the first two months of this year were 5.8 per cent. above the average for the corresponding period in the four years immediately preceding 1930, according to statistics compiled from the records of the Automotive Daily News.

This is a highly favorable record for the current year when it is considered that the past four years have seen remarkable expansion in both production and sales in the industry.

The average new car registrations in this country for the four years preceding 1930, amounted to 3,062,929. If the complete registrations in 1930 can show the same gain over the four-year average as those of the first two months (and there appears to be no reason why they shouldn't, as the later months of 1930 are expected to make a better showing in relation to recent years than the first), the total new car sales for the current year will approximate 3,240,589. This would compare with 3,331,407 in 1929, a decline of 140,818, or only 4.1 per cent.

While it is true that January registrations were 18 per cent. below last year and February sales about 9 per cent. under, these months had to be compared with the early part of 1929, when thousands of orders for both the new Ford and Chevrolet cars had been carried over from the preceding year and were filled as fast as possible in the first quarter of last year. So the declines of the first two months of this year do not necessarily indicate the extent of the falling off for the entire twelve-month period.

Registrations in January of this year were 180,094, and in February, 211,645, a total of 391,739. This com-

(Continued on Page 2)

Court Action Started Over MoonElection

Wilmington, Del., April 17.—A bill of complaint, charging that the special stockholders' meeting of the Moon Motor Car Company in St. Louis, on April 7, was illegal and that the new directors and officers elected at the meeting are not entitled to hold office, has been filed in Chancery Court, here, by Stanley Moon and Philip Glick of St. Louis, stockholders.

Chancery Court has been asked to decree the election of eight additional members to the board invalid, and also decree that the new officers elected by the enlarged board are not entitled to office, and to reinstate the old officers.

It is alleged in the bill that no notice of the special meeting was given stockholders and that a quorum was not present.

STANDARD INTRODUCES NEW GUM-FREE MOTOR OIL

Buffalo, April 17.—The Standard Oil Company is today introducing in this territory a new gum-free motor oil, which will be marketed under the name "Banner." Generous outdoor and other advertising is being used in connection with the launching of this new product. Souvenirs are being distributed and the entire sales area is being made conscious of this new motor lubricant.

TODAY

Sparks from Detroit.....Page 2
Editorial: "How Free Should Service Be?".....Page 4
Calendar of Coming Events.....Page 4
Engineering News: New Products.....Page 6
U. S. Business Chart.....Page 11
Financial News.....Page 11

MERCHANDISING
Teaser Ads with a Good Slogan Prove Successful Page 3

WHOLESALE
Window Service Station Pays Speedometer Expert....Page 7

REFERENCE TABLES
Cumulative Passenger Car Registrations.....Page 5
Cumulative Commercial Car Registrations.....Page 6
Commercial Car Specifications.....Pages 8, 9, 10

ALL offices of Automotive Daily News will be closed all day Saturday from April to September inclusive.

Succeeds W. R. Tracy

W. A. BLEES, general sales manager of the Oakland Motor Car Company, Pontiac, Mich., has been named vice-president in charge of sales to succeed W. R. Tracy, resigned.

HEAVY DUTY TRUCK OUTPUT EXCEEDS 1928

New York, April 17.—Production of heavy duty motor trucks for the first quarter of this year shows a steady, normal increase over 1928 and 1927, although the figures are somewhat below the abnormal peak reached in the corresponding period last year, as reported by the ten leading manufacturers in this class at the meeting of commercial vehicle manufacturers at the National Automobile Chamber of Commerce yesterday.

Of the heavy duty trucks and buses accounted for in the report, an increase of 2.07 per cent. was noted over the 1928 production figures for the corresponding period, and an increase of 37.1 per cent. over the production during the first quarter of 1927. A decrease of 29.7 per cent. is shown in 1930, compared with the production last year.

Tonnage originating on motor

(Continued on Page 2)

HIGHER POWERED WILLYS CAR PRESENTED IN FOUR STYLES, LISTING AT $1,245 TO $1,395

Companion to Six Is Built on 120-Inch Wheelbase, With Straight Eight Engine, Developing 75 Miles Per Hour

TOLEDO, O., April 17.—Willys-Overland today joins the ranks of the producers of straight eights by offering an eight-cylinder line with a wheel base of 120 inches. While this is the first straight eight to carry the Willys mark, this company formerly put out a V-type Knight job, so that eights are not entirely strange to it.

This action by Willys-Overland narrows still further the number of manufacturers that have not added eights to their lines. In some cases the makers hold to the V-type, but the general acknowledgement of the growing popularity of the eight-cylinder car is impressive. It is likely that there will be other accessions to the ranks of the eights before the year goes much further.

The new Willys Eight is the senior companion car to the lower priced Willys Six. The eight is presented in four body styles, consisting of a de luxe sedan, $1,395; a standard sedan, $1,295; a de luxe coupe, $1,345, and a standard coupe, $1,245. The sedan models accommodate five passengers, while the coupe is designed to comfortably seat four. A commodious baggage compartment is provided in the rear of the coupe.

Powered with an L-head straight-eight engine that develops eighty horse power and produces a speed of more than seventy-five miles an hour in high and forty-eight miles an hour in second gear, the Willys

(Continued on Page 4)

France Hits At U. S. Cars; Boosts Duty

Special from A. D. N. Washington Bureau

Washington, April 17.—The Department of Commerce today was officially advised by radiogram of the action of the French Senate and Chamber of Deputies in passing, with slight modifications, the bills substituting specific duties for the present ad valorem duties on automobiles and parts.

Automotive Trade Commissioner W. L. Finger informed the department that the new rates will become effective upon promulgation, which is expected within a few days.

At the same time there was general resentment in Congress, particularly in the tariff group, and there was some speculation as to whether the Senate and House conferees would agree to a reprisal measure in order to protect American automotive interests.

About a week ago the National Automobile Chamber of Commerce appealed to Congress to restore the flexibility clause in the Smoot-Hawley bill.

It is claimed by the American interests that the French bill, which passed the Chamber of Deputies by a vote of 475 to 2 and was imme-

(Continued on Page 2)

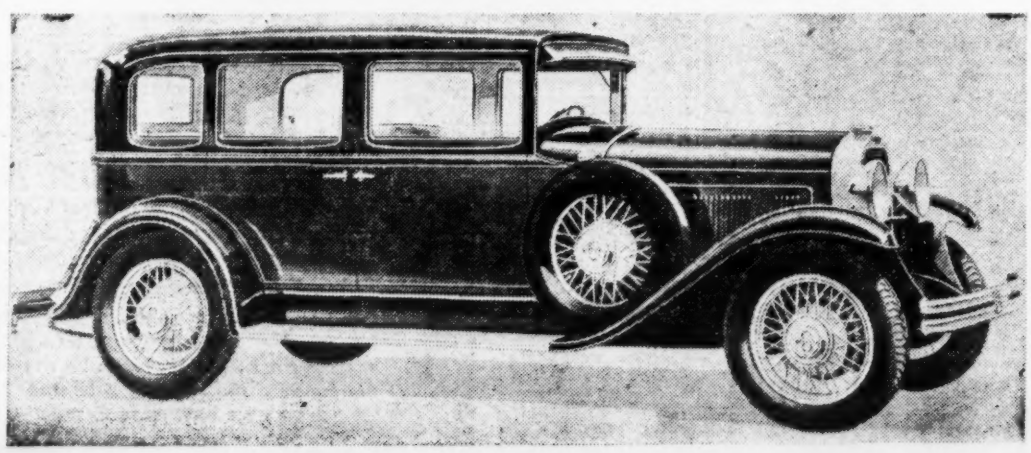
SEILER FINDS TRUCK CONDITIONS EXCELLENT

Pontiac, Mich., April 17.—"Our business not only 'looks good,' but it actually is good," states Paul W. Seiler, president and general manager of the General Motors Truck Corporation, who has just returned from a complete circuit of the United States, the last three thousand miles of which were covered in Mr. Seiler's private coach, "The Carcajou."

"Truck sales are well known to be reliable barometers of general business," says Mr. Seiler. "During my trip I talked personally with practically every one of our branch managers and distributors, and, frankly, I have never seen them more enthusiastic. It isn't merely an optimism based on hopes, either. I found that our stocks in the field on the first of April were just about two-thirds of the total trucks on hand at the same time last year. This includes not only stocks of our branches and distributors, but our dealers as well. Retail truck deliveries showed a decided increase during the past ten days as compared with the same period in 1929, and the increase seems destined to continue steadily through the big spring selling season.

"Unfilled retail orders for trucks on hand during the past few days have averaged 59 per cent. greater than for the similar period last year, and our shipments at the present time are just about keeping pace with our incoming orders."

Willys 8-80 De Luxe Sedan, $1,395



Car Sales in 1930 Ahead Of 1926 to 1929 Average

(Continued from Page 1)

pared with an average for the four-year period of 183,957 for January and 186,198 for February. Thus the January registrations this year were 2.1 per cent. below the four-year average, and those of February 13.6 per cent. above the average.

For the first two months of the current year, registrations were 391,739, as compared with an average of 370,156 for the preceding four years, an increase of 21,583, or 5.8 per cent.

The attached tabulation reveals that the registrations for January this year were exceeded by January, 1926, and January, 1929, while those for February were topped by only February of last year. The sales for the first two months of 1930 were exceeded only by the corresponding period of 1929.

Registrations in the first two months of 1929 were 23 per cent. above the average for that period for the four years 1926 to 1929, inclusive, while those of the first two months of 1928 were 18 per cent. below the four-year mean. In 1927 the two months' total was 4.1 per cent. below, and in 1926 0.7 of 1 per cent. below.

Retail sales of new cars in the United States in the years 1926 to 1929, inclusive, totaled 12,251,758, of which 1,480,625, or 12.3 per cent., were sold in the first two months of the four years.

If the registrations of the first two months of 1930 turn out to represent the same proportion of the total for the year as has been the case in the average fr the preceding four years, or 12.3 per cent., the 1930 total will be 3,184,870. This would be somewhat less than the indicated figure obtained by figuring the gain in the first two months this year over the average and applying it to the full year, which, as stated above, gave 3,240,589 for the year, a decline of only 4.1 per cent.

Providing that the figure obtained by crediting the first two months' total in 1930 as 12.3 per cent. of the total for the year proves more correct that the larger one, the decline this year would amount to 196,537, or nearly 6 per cent., rather than only 4.1 per cent. Even this, however, would be a highly acceptable figure for the industry, which started the year expecting to see sales drop off 15 to 20 per cent.

The following table shows the total new car registrations for each of the past four years, with the total and average indicated:

1926	3,134,107
1927	2,601,964
1928	3,134,280
1929	3,381,407
Total	12,251,758
4-year average	3,062,939

Following are the figures for the first two months of the past four years, with the average and the comparative figures for the first two months of 1930:

	1926	1927	1928	1929	4-year average	1930
January	203,447	174,655	137,884	219,845	183,957	180,094
February	164,071	180,070	165,316	235,337	186,198	211,645
Totals	367,518	354,725	303,200	455,182	370,156	391,739

FRANCE HITS AT U. S. IN NEW CAR TARIFF

(Continued from Page 1)

diately ratified by the French Senate, is extremely discriminatory in that American and other imported cars are taxed on a kilogram basis rather than their horse power. This is distinctly to the disadvantage of heavy cars with moderate horse power.

Detroit, April 17.—There has been widespread discussion here of the new French tariff schedule as it affects our exports of automotive products. While no official statement has come from the National Automobile Chamber of Commerce or from any one accredited to speak for the industry, it is believed here, in view of previous comment by automotive leaders, that the present French law is anything but satisfactory. It is felt that the new tariff provisions can only be considered as an attempt to drive American automotive products out of the French market.

NEW LOW-PRICED GRAHAM MODELS WELL RECEIVED

Detroit, April 17.—One clear-cut indication of the increasingly healthy state of the automobile market is seen in the enthusiastic reception which is being accorded the recently announced low-priced Graham six models throughout the country, says F. R. Valpey, Graham general sales manager.

Telegrams from distributors and dealers who have the new models on display report a degree of public interest that has seldom been matched in their experience and sales in quantities which are sufficient to establish firmly the standing of the new Grahams in the very forefront of their price class.

G. M. EXPORT OFFICIAL SAILS

Anderson, Ind., April 17. — Announcement was made that Ray Wilson, formerly with the General Motors units here, has sailed for Sao Paulo, Brazil, to become treasurer of the General Motors Corporation export assembly plant. Mr. Wilson recently returned from a business assignment in Japan.

CITIES SERVICE PROFITS INCREASE OVER YEAR AGO

New York, April 17.—Cities Service Company's net earnings for the twelve months ended March 31, 1930, were $49,399,535. This is an increase of more than 41 per cent. over net earnings of $34,997,690 for the same period a year ago. The company's net earnings for March were $5,201,908, an increase of 64 per cent. over the same month last year, when net earnings were $3,152,838.

NASH CO. REPORTS GOOD APRIL RETAIL DELIVERIES

Chicago, April 17.—Sales reports from distributing points of Nash Motors Company throughout the country indicate a very steady and healthy upturn in retail deliveries during the past four weeks, according to C. H. Bliss, sales manager.

In view of the facts at hand we have every reason to believe that although the month of April will not equal April, 1929, it will nevertheless prove a satisfactory month, he said. A report made up from weekly reports of retail deliveries by our distributors and their metropolitan dealers shows the highest deliveries for any week since September 14, 1929. Retail deliveries in New York during the week ended April 5, were the biggest with one exception since July 27, 1929. In Cook county they were the largest since August 31, 1929. Boston reports its biggest week since July 6, 1929.

MACK TRUCK SALES UP IN NEW ENGLAND DIVISION

New Haven, Conn., April 17.—Phenomenal business for the first quarter of 1930 is reported by W. A. Maynard, president of the New England Division of the Mack Truck Company. A total of 252 truck and bus units have been sold in this territory during January, February and March, representing a total value of over $1,000,000, Mr. Maynard says.

The highest total for a first quarter on record is the 1926 figure, 332 units. The figure in 1927 was 185 and 210 in 1928, with 1929 at about the same level. Growth of bus transportation in the New England states is believed to have been a factor in the increase.

SEES DIESEL ENGINE FUEL CONSUMPTION PROBLEM

Indianapolis, Ind., April 17.—The Diesel engine, with its low fuel consumption, presents a problem for the states to meet before the very distant future, Leland K. Fishback, Indiana gasoline tax collector, says in a bulletin prepared for the North American Gasoline Tax Conference.

State Auditor Bobbitt is president and Mr. Fishback is secretary of the North American Gasoline Tax Conference, which will hold its next meeting at Toronto September 2—4.

U. S. RUBBER INCREASES BOARD; 2 NEW DIRECTORS

New York, April 17.—Samuel B. Howard and William H. Stevens have been elected directors of the United States Rubber Company. With the exception of W. O. Cutter, resigned, other directors were re-elected, the number on the board being increased to twenty from nineteen.

HEAVY DUTY TRUCK OUTPUT EXCEEDS 1928

(Continued from Page 1)

trucks now exceeds that carried by railroads, although the greater average haul by rail gives the railroads an annual ton-mileage of over 400,000,000,000, as compared with over 20,000,000,000 by truck, it was announced.

Addresses presented at the meeting were in connection with the chamber's truck educational campaign now in progress. A. J. Brosseau, truck committee chairman and president of the Mack Trucks, Inc., presided.

Subjects and speakers at the forenoon session included: "Why a Truck Educational Campaign?" by Mr. Brosseau; "Presenting Our Case to the Public," Alfred Reeves, chamber general manager, and "Where Will Truck Taxation Stop?" Pierre Schon, General Motors Truck Corporation.

The importance of the present unfair tax burdens being shouldered by the motor truck, and its detrimental effect upon the progress and growth of the industry at large, was one of the main topics of the day.

"One of the most erroneous and insidious statements made about commercial vehicle operations is that 'trucks ride free on the highways which are built by the public'," Mr. Reeves stated.

"Recent tabulations made by the National Automobile Chamber of Commerce from official government figures show conclusively that the truck not only is paying its share of highway construction and maintenance expense in registration fees, but that over the country generally it is paying nearly twice as much per vehicle compared with the passenger automobile.

"Commercial vehicles comprise only 13 per cent. of the nation's automobiles and pay more than 25 per cent. of the total registration receipts for all cars. The large annual mileage of trucks and their higher rate of gasoline consumption compared with the passenger car make this differential still greater."

Topics discussed during the afternoon were presented by M. L. Pulcher, president Federal Motor Truck Company, "What Can We Do to Strengthen Truck Owners' Organizations?" T. R. Dahl, vice-president White Motor Company, "Can Regulation of the Truck Business Help Us?" and Edward F. Loomis, chamber truck committee secretary, "What Uniform Policies and United Action Can Do for the Truck Industry." Open forum discussion followed the addresses.

Commercial vehicle manufacturers represented at the meeting included: Atterbury Motor Car Company, Autocar Company, Chevrolet Motor Company, Corbitt Motor Truck Company, Dodge Brothers Corporation, Durant Motors, Inc.; Fargo Motor Corporation, Federal Motor Truck Company, General Motors Truck Corporation, Graham-Paige Motors Corporation, International Harvester Company, La-France-Republic Corporation, Le-Blond-Schacht Truck Company, Maccar Truck Company, Mack Trucks, Inc.; Pierce Arrow Motor Car Company, Relay Motors Corporation, Reo Motor Car Company, Sterling Motor Truck Company, Stewart Motor Corporation ,Studebaker Corporation, Walker Vehicle Company, Ward Motor Vehicle Company, White Motor Company and Willys-Overland Company.

SWEDISH ASS'N TO HONOR VINCENT BENDIX IN CHICAGO

Chicago, April 17.—Vincent Bendix, president of the Bendix Aviation Corporation, will be honored with a testimonial banquet by the American Sons and Daughters of Sweden at the Stevens Hotel on April 23. Col. Charles A. Lindbergh has been invited to the banquet, which is being given in recognition of the distinction recently conferred upon Mr. Bendix when he was decorated at Stockholm by King Gustav as commander of the Royal Order of the North Star.

WARNER-QUINLAN TO VOTE ON INCREASE IN STOCK

New York, April 17.—Stockholders of the Warner-Quinlan Company will vote to increase authorized capital stock of company to 1,500,000 no par shares from 1,000,000 no par shares at its annual meeting on May 5.

Company will soon offer rights on the basis of one share at $18 for every five held. When new financing is completed there will be 759,537 no par shares outstanding.

WILCOX-RICH NET PROFIT IN QUARTER $310,997

New York, April 17.—Net profit of the Wilcox-Rich Corporation for the quarter ended March 31, 1930, was $310,997 after charges and Federal taxes, comparing with $484,451 in the first quarter of 1929.

SPARKS from DETROIT

Prosperity

* * *

Weather

* * *

Taxation

* * *

Sales

Fred Kingsbury—Detroit Editor

PROSPERITY is returning rapidly in Detroit and every one is in a better frame of mind. Business houses are reporting increasing trade every week and employment conditions at the various automobile factories are vastly improved. Del A. Smith, general manager of the Detroit Street Railways, says that early conditions for April show an upward trend in receipts and that the depression has passed.

"From this time on a stronger and more substantial volume of business may be expected," he said.

Usually, in Detroit, when street railway receipts begin to climb business gains, so every one is greatly pleased with the outlook for the summer months.

* * *

MOTOR car manufacturers have been wearing broad smiles during the last few days, because of weather conditions. They are of the opinion that spring is here to stay and that warm weather will be a great change in business for the better. A few days ago temperature of 85 degrees was registered in the city and inquiry among automobile merchants brought out the fact that interest in motor car purchases has quickened. Sales of used cars showed a spurt.

* * *

A COUPLE of weeks ago the Oakland Motor Car Company moved from its large salesroom on the Cass Avenue side of the General Motors Building and concentrated its activities in its salesrooms in the General Motors Research Building, a half block away. This is the largest showroom in the world.

Frigidaire has just moved into the salesroom vacated by Oakland and thus is enabled to display all its models of iceless refrigerators.

* * *

RAY COOPER, manager of the All-American Aircraft Show, which closed Sunday night, is a very happy man. The show this year broke all records in attendance, sales and number of models displayed. Plans are being made for an even greater exposition next year.

* * *

M. L. PULCHER, president of the Federal Motor Truck Company, writing in Traffic, a periodical published by the Federal organization, under the heading "Equitable Taxation of Business Stagnation," calls attention to the high taxes on motor trucks. He says, in part:—

"By no means is the injustice of excessive taxation confined exclusively to operators of commercial haulage equipment. Industry in virtually all lines suffers from this blow at one of the world's essential forms of transportation, while the cost in actual dollars and cents falls back on the ultimate consumer in the form of increased cost of the necessities of life. With all its generally recognized usefulness today, the truck could be of infinitely greater service to mankind if relieved of the burden of overtaxation and required to pay only its just share——"

He then calls atttention to the fact that truck lines operating in two states must pay full taxes in both states.

* * *

"THE automobile business is no longer a business of manufacturing and wholesaling," says Donaldson Brown, vice-president and chairman of the finance committee of the General Motors Corporation. "It has become a business of retail merchandising, and the strength and permanency of any producer must be measured in terms of the strength of his retailing organization. No policies or practices can survive which do not definitely reckon with the equities of the dealer and the intricacies of his operating position down to the last detail."

* * *

A GREAT many automobile dealers throughout the country are getting ready for their spring showing of motor cars. Among them are all the Cadillac-La Salle dealers in the United States, who are said to have arranged very attractive displays. The annual spring showing in the automobile business has proved very effective in the past in stimulating sales of motors.

TEASER ADS WITH GOOD SLOGAN SUCCESSFUL

Wisconsin News Co-operation With 50 Dealers in Milwaukee Aids in Used Car Sale.

"TEASER" newspaper ads and a good slogan can go a long way towards successfully aiding in the sale of used cars. The Wisconsin News, Milwaukee daily, recently co-operated with fifty of the leading automobile dealers in Milwaukee in conducting a successful campaign of this sort.

Small "teaser" ads, one column by 2¾ inches deep, were featured each day for a week before the final ad-

vertisement was to run. The small advertisements were of a cartoon nature and were scattered throughout the paper, from four to six being run throughout one issue.

The first advertisement pictured a bag and, as the series evolved, the cat was finally let out of the bag. In addition, the numerals 80-60 were carried in connection with the advertisement. The final teaser ad read as follows:—

"The cat's out of the bag! A

great used car event starts Monday. Get your copy of the News and make your selection early."

* * *

THE week of small advertisements culminated in a six-column advertisement listing the names of the fifty local automobile dealers co-operating in the event. Copy in the advertisement read as follows:

"A pledge to Milwaukee's prospective automobile buying public! The

'dollar-for-dollar' value has been beaten to the background by a new idea in mercahndising. Now, in tune with the modern trend, Greater Milwaukee's leading automobile firms have banded together to establish a new era in the history of used car values.

"They have arrived at a standardized plan and pledge themselves to given the buyer absolutely 80 per cent. of new car value at only 60 per cent. of the cost. This new merchandising era opens a field of opportunity never before available to the automobile buyer. Every dealer co-operating in this huge plan has pledged to sell his entire stock of used cars at the standardized ratio of 80 per cent. in value to 60 per cent. in price.

"Today marks the beginning of this plan. The first 80-60 bargains are conveniently listed in the 'Automobiles for Sale' columns of News want ads. If you are thinking of buying a car, this is your opportunity. Turn the pages now and investigate."

* * *

DEALERS co-operating in the campaign included Anger, Inc., Arndorfer & Kuhl, Inc., Bailey Motor Car Company, Borkin Auto Exchange, George W. Browne, Inc., Cadillac Motor Car Company, De Boer Motors, Inc., Dietz Motor Company, Ebert Auto Sales, Finkler Motor Car Company, Fleischer Buick Company, Goerke Motors, Goodnetter Auto, Grand Avenue Buick Company, Gunderman Motor Sales, Haderer Motor Company, Hagner Motor Company, Hall Chevrolet Company, Hansen Motor Company, Theodore F. Harditke and Highland Motor Service.

Hokanson-Thompson, Inc.; Holmes Motor Company, Hoppe Motor Car Company, Jaeger Motor Car Company, King-Braeger Company, Kitzerow Motor Company, Kraatz Motor Company, Merkle Chevrolet Company, Miller Motor Company, Nash Sales, Inc.; Noll-Nelson, Inc.; Northwestern Motor Car Company, North Side Chevrolet Company, Packard Motor Car Company, Reuteler-Dorsch, Inc.; Schwenger-Hand, Inc.; Sherman Park Garage, Shogren-Thomas Company, Jesse A. Smith Auto Company, Studebaker Sales Company, Syndicate Finance Company, Thompson & Martin, Harry Tobin, Inc.; R. W. Vondette, Weber Motor Company, Widrig Motors, Inc.; George H. Williams, Inc.; Dick Witte, and Eighth Avenue Motor Sales.

Use of Art Work in Ad Copy Essential

SALE!
of Used Cars
Car after car, value after value . . . lined up in our showrooms for you to examine. Scores of makes to choose from, amazingly underpriced, for we've GOT to have room for new purchases. Buying a car at trifling cost is easy with this list before you—
1930 Plymouth 4-door Sedan $475
1926 Chrysler "70" Coach $350
1925 Chrysler "B" Sedan $275
1927 Chrysler "70" Sedan $600
1928 Chevrolet Sedan $375
1927 Buick Series 115 2-door Sedan $500
1926 Buick Series 120 4-door Sedan $350
1927 Dodge Roadster $275
1927 Hupmobile "6" Sedan $375
1929 Chrysler "75" Spt. Road. (Lefteran) $1,225
Conrad & Duthie, Inc.
Chrysler & Plymouth — Sales - Service
102-104 First Street Hackensack
TELEPHONE HACKENSACK 435

BEFORE AN ADVERTISER can get people to read his message he must first attract their attention to his display ad. This has been successfully accomplished by Conrad & Duthie, Inc., Chrysler-Plymouth dealer in Hackensack, N. J. In a recent used car sale this dealer employed art work, showing the open country road on one side and the city street on the other. In the center was its message to used car prospects, telling of the bargains in its used car showroom and the reduction in price to secure room for new purchases. Ten cars were featured by name, model and year, with the delivery price

Prospect Work Sheet Used To Excellent Advantage by Dealer in Colorado Springs

By ANNA L. NEWSOM

THE work sheet used by the Van Dyke Motor Company of Colorado Springs, Col., dealer for the Studebaker and Erskine cars, is a double deck affair with the upper section containing places for the names of at least ten prospects for the day's work.

There is also space for all kinds of information on each prospect on the upper portion of the card. Then if a certain prospect who is seen or heard from today cannot be seen for a period of two or three weeks, this notation is transferred to the proper place on the lower part of the card, and is preserved for that salesman until the date indicated arrives.

Wm. Hendrix, sales manager, meets his three salesmen in a thirty-minute sales conference each morning, and in this meeting new prospects are presented and old prospects and problems are discussed with a view of selling the one and solving the other.

When a salesman is given the name of a prospective customer, he holds that prospect for sixty days provided his card shows he is active with the prospect. To be considered active his sales sheet must show that he is in touch with the prospect directly or indirectly at least twice each month.

After sixty days, if the salesman fails to make the deal, the prospect may be handled by another salesman or by a member of the firm. Of course, there are cases where a salesman finds or believes that another salesman could handle a certain customer better than he can, and an exchange of prospects is made which is satisfactory to all concerned.

* * *

"WE follow a pretty systematic direct mailing campaign also with our prospects," said Mr. Hendrix. "When a prospect has given one of our salesmen an interview, we send him a letter of thanks for his time and courtesy. This is followed by other letters as our men demonstrate cars to the prospect.

"Then the first of the month we generally send out cards asking our used car prospects to come in or call us for a demonstration of a special car in which we believe a certain prospect will be interested. In this card we partially describe a particular used car for each prospect. If this card brings no response, another is sent or a salesman is directed to call."

* * *

MR. HENDRIX says that the average used car taken in on trade goes through three trades before it is ready to be junked. "This would," he said, "create a serious used car problem if used cars were not handled systematically. We have partly solved the problem by two filing systems. One is a file which informs us as to the owner, the year and model and the condition of his car—say it is a Buick. We'll suppose we take in a certain year and model Buick car which is in excellent condition. We immediately look over our file of used car prospects—that is, our other file—and see the name of a man who might be interested in this better Buick. We may make a deal for this better car, but we still have the other one. Then we use our used-car-prospect file until we find a man who might want the other car. (Other makes of cars are filed in this manner, even to a miscellaneous list.)

"This plan of ours has a two-fold purpose. Of course, it gives us the commission on the sale or sales, but it does more. It raises the standard of cars owned by showing and trying to sell and selling a man a better car than he is driving, even though it be a used car. And it gets the old ones to the junk pile earlier, and that is desired by dealer and car owner alike."

CANADA REPORTS GAIN IN FINANCING OF CARS

Montreal, April 17.—A surprising increase in automobile financing is indicated by the new Dominion Bureau of Statistics index for February. Automobiles financed in February numbered 5,390, as compared with 4,948 in January and 4,436 in February, 1929. The value of the financing was $2,842,940 as compared with $2,655,500 in January and $2,523,000 in February, 1929.

The increase is explained by the break-up between new and used cars, the figures showing that the number of new cars financed declined by nearly 100 to 1,773, as compared with a year ago, while used cars financed increased by over 40 per cent. to 3,617. The value of new cars financed during the month was -$1,344,523, as compared with $1,019,848 in January and $1,449,000 in February, 1929, while the value of used cars financed was $1,508,417, as compared with $1,635,669 in the previous month and $1,023,919 a year ago.

CHICAGO DEALERS PEPPING UP THEIR SPRING CAMPAIGN

Introducing Drama and Color in Their Selling Efforts

By WALTER A. BERMINGHAM

MOTOR CAR dealers throughout Chicago are introducing considerably more of drama and color into their selling efforts than is usual in connection with the spring drive for business. Forceful methods in a variety of forms are being employed to bring before the buying public the merits of various makes of cars, with such points as performance, appearance, value and popularity being particularly stressed.

The Hudson Motor Company of Illinois, for instance, has resorted to the expediency of putting one of the new Hudson eights through a public non-stop run over Chicago streets, the car covering approximately 5,000 miles in the course of a one-week test. Included in the test were speed capacity in second gear and braking ability, as well as plain day and night running.

Pontiac dealers have inaugurated a demonstration drive which will continue until April 30. In this connection a fleet of new series Pontiac big sixes is being placed at the disposal of Chicagoans, the demonstration cars being indicated by the appearance of red rockets or arrows painted on their sides. These cars, with drivers, are stationed in front of every Oakland-Pontiac dealer's establishment in the city, and motorists are being especially invited and urged to ask the man behind the wheel for a demonstration ride ranging anywhere from a trip around the block to a drive of several miles. Drivers are on duty daily until 10 o'clock each evening.

* * *

"THE average motorist frequently imagines he is contracting some sort of obligation when he accepts a demonstration ride," said H. A. Wehmeier, vice-president and general manager of Community Motors, Inc., the Oakland-Pontiac distributors. "That, of course, is not the case, and in order to prove this fact we have placed the Red Rocket Pontiacs at the disposal of the public. All that is required is to step up to a Red Rocket driver and say, 'I want a ride.'"

Cadillac and Oldsmobile-Viking are also urging motorists to take demonstrations in connection with their special spring salons, Cadillac stressing the new V-16 model and the Oldsmobile-Viking dealers designating their trial ride campaign as "Pet Proving Ground Month," with Viking models being featured.

The Gambill Motor Company, Hupmobile distributor, and its affiliated dealers have been quick to capitalize upon the fact that, during the first three months of this year, Hupmobile broke all previous records in registrations, according to the official Cook county figures.

At the Bird-Sykes Company, Graham distributor, and in the show rooms of its affiliated dealers' window demonstrations of the new shatter-proof safety plate glass, used in Graham automobiles and Paige commercial cars ,are vying for attention with large painted signs proclaiming entry of Graham-Paige into a lower-priced field by virtue of introduction of the new Standard Six models.

A trip up and down motor row brings out prominently that distributors and dealers are featuring, in conspicuous window-display signs, the models in their lines of greatest and most widespread popular appeal, together with the dominant selling point among the many they have for 1930.

Automotive Daily News

"Of, By and For the Entire Automotive Industry"

Published Every Day Except Sunday and Monday by
AUTOMOTIVE DAILY NEWS PUBLISHING CORPORATION,
350 Hudson St., New York, N. Y.
O. J. Elder, President. H. A. Tarantous, Vice-President. Alexander Johnston, Secretary.

Entered as second-class matter August 27, 1925, at the post office at New York, N. Y., under the Act of March 3, 1879.

Circulation—Net paid Average over 10,000 daily guaranteed.
Member A. B. C.

FRIDAY, APRIL 18, 1930

ADVERTISING AND BUSINESS HEADQUARTERS

2716 Graybar Bldg., New York, N. Y. Telephone LEXington 6388
Harry A. Tarantous, Business Manager. J. Edward Schipper, Eastern Manager.
George M. Slocum, Manager Detroit Bureau, 427-8 Fisher Building, Detroit, Mich., phone Empire 3500; Willard R. Cotton, Western Manager, 333 North Michigan Ave., Chicago, Ill., phone Central 5936; Metz B. Hayes, New England Manager, Little Building, Boston, Mass; Blanchard, Nichols & Coleman, American National Bank Building, San Francisco, Cal; Lincoln Building, Los Angeles, Cal.; 1037 Henry Building, Seattle, Wash. Address ALL advertising and business correspondence to 2716 Graybar Building, New York City.

EDITORIAL DEPARTMENT

350 Hudson St., New York, N. Y. Telephone CANal 1000
Alexander Johnston, Editor. William C. Callahan, News Editor.
Detroit Bureau.—Fred Kingsbury, Editor, 427-8 Fisher Building, Detroit, Mich., phone Empire 3500. Contributing Editor, John C. Weimore.
Mail subscriptions to CIRCULATION DEPARTMENT—C. H. Wilson, Manager.
1926 Broadway, New York, N. Y. Telephone TRAfalgar 4500
Subscription Rates—One year, $12.00; two years, $20.00, for United States and Canada.
To Foreign Countries—One year, $15.00; two years, $26.00. Single copies, 10 cents.

How Free Should Service Be?

IN A recent issue of The Automotive Daily News, an automobile dealer gave it as his considered opinion, based on personal experience, that there is "too much free service" in the automotive business. This dealer in his establishment charges a nominal fee for various minor services, which a good many merchants throw in as good will.

This merchant mentioned among other minor services putting on license plates, installing new electric bulbs, putting on chains. He had charge slips covering these apparently small matters, which showed an average of 160 hours per week spent by his men in giving them to customers. He pointed out that this time actually meant $96 of his cash and, when one multiplies this by fifty-two weeks, he finds a fairly impressive sum, which many dealers give away in the attempt to establish good will.

This automobile business of ours seems to be peculiarly open to imposts on its retail merchants, which other lines of selling do not have. For instance, no one who goes into a grocery store to buy a mixed order totaling say $5 considers it his right to devour a pound of cakes and a quarter of cheese, while he makes his desires known to the clerk. No man would go into his vendor of liquid refreshment and order a half dozen bottles of ginger ale, and consider himself privileged to open and guzzle a bottle of soda, while he stood in the shop. No one in his senses would go to his tailor to buy a suit and pick up a cap to carry away, as a perquisite for placing his business in the particular shop he frequented.

The truth is that the automobile merchant should give free service only to the extent to which he is responsible for the condition that is being remedied. The dealer who sells a car to a patron is bound to deliver it to him in proper order. If he has failed to do so he is morally bound to make good the omission. If the dealer's shop takes on a job that is not satisfactory it is morally bound to make good on what it has charged for doing.

We have made somewhat of a shibboleth of service in our business. Within definite limits this is good. Service should be honest, prompt, careful and courteous, but it should be free only when the moral responsibility for the condition that is to be cured, whether it is dirt or burned out bulbs, or rainy weather or what, rests on the dealer who is to supply the labor. Beyond that the patron is morally bound to pay for the time he demands of the dealer's staff.

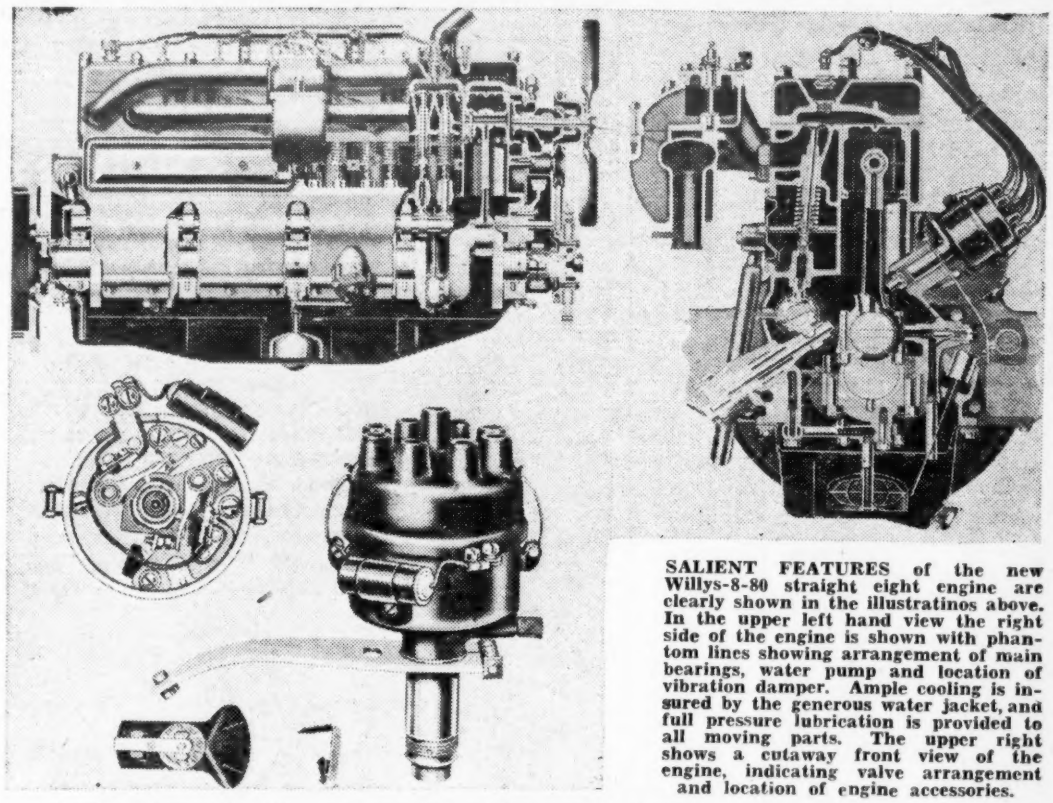
Stable Installment Buying

COL. LEONARD AYRES of Cleveland in a recent statement calls attention to the stabilizing influence which installment buying exerts on the automotive sales market. The remarkable fact about time payment sales is that they vary little from year to year, regardless of prosperity or depression. Of course, the curve of installment buying goes up during the season of intensive buying, but the individual months consistently stay at about the same levels as those of corresponding periods of the year before.

Another very interesting and significant fact brought out by Col. Ayres is that installment buying does not tend to run to excessive lengths. For instance, in 1920 time payment purchases of motor cars were 62 per cent. of the total sales. In 1924 they were 70 per cent., but from then on the proportion declined. In 1928 deferred payment purchases were only 58 per cent. of the total.

This condition answers the criticisms that used to be heard to the effect that Americans were mortgaging their futures too heavily in buying so many motor vehicles on "time." The principle of paying from income, for any device contributing to efficiency, is generally acknowledged. The only danger has been a tendency to buy more heavily than income prospects justified. Certainly the actual percentages of motor vehicles purchased on payment spread over the future do not justify any fears that we are unduly extending our personal credits for this purpose.

OVERLAND OFFERS WILLYS STRAIGHT EIGHT IN FOUR TYPES LISTING AT $1,245—$1,395



SALIENT FEATURES of the new Willys-8-80 straight eight engine are clearly shown in the illustratinos above. In the upper left hand view the right side of the engine is shown with phantom lines showing arrangement of main bearings, water pump and location of vibration damper. Ample cooling is insured by the generous water jacket, and full pressure lubrication is provided to all moving parts. The upper right shows a cutaway front view of the engine, indicating valve arrangement and location of engine accessories.

(Continued from Page 1)

Eight is designed to fully meet every speed and power demanded of modern motoring.

The 120-inch wheelbase and the overall chassis length of 166⅝ inches have given the designers unusual freedom in providing a car of graceful, sweeping lines with maximum roominess for drivers and passengers in the spacious seats. The style note is also carried cut in the carefully blended color combinations of the exterior and the rich upholstery and fittings of the interior.

Flexible padded arm rests at each side of the wide, deep seats in the rear, smart toggle straps for hand grip and foot rail are noticeable features of comfort. The front seat of the sedan and the driver's seat in the coupe are adjustable by means of a handy turn screw which is within easy reach and may be operated while driver is seated. This seat adjustment assures driving convenience for a tall or short person and is especially pleasing to women drivers who sometimes are handicapped by the distance from seat to clutch and brake pedals. Steering posts in all models also are adjustable.

The car accelerates from five to twenty-five miles an hour in 7.9 seconds and from five to fifty miles an hour in 19 seconds, according to Willys engineers. The natural "proving grounds," used to test the hill and mountain climbing ability of the car, included Mount Lookout, Signal Mountain and Cameron Hill at Chattanooga, Tenn., the Federal Street hill in Pittsburgh and the mountainous route between Chattanooga and Pittsburgh. Each test was carefully checked by Willys-Overland engineers.

Bendix Duo Servo internal expanding, two-shoe type brakes twelve inches in diameter are employed, giving a total braking area of 187 square inches. The hand brake, which is located at the extreme left of the driver's section, operates on all four wheels.

Finger-Tip Control, a widely known feature pioneered by Willys-Overland, also is employed on the Willys Eight. This comprises a button control, located in the center of the steering wheel, for starting the engine, sounding the horn and operating the lights without changing the driving position.

Mono-control permits the opening or closing of the windshield with utmost ease and safety while driving.

The Willys eight power plant is a straight eight "L" type, with a bore of 3⅛ inches and a stroke of 4 inches, having a piston displacement of 245.4 cubic inches. It develops 80 horse power at 3,200 revolutions per minute and a torque of 170 feet at 1,200 revolutions per minute. The compression ratio is 5.4 to 1.

Four point suspension is employed and at each point of contact with the frame rubber insulation is used, this resulting in smoothness, absence of rumble or minor vibrations and materially enhances the pleasure of driving.

EFFICIENT OILING SYSTEM

The full pressure oiling system is used. The oil is carried under full pressure to crankshaft bearings, connecting rod bearing, cam shaft bearings and timing chain, while other engine parts are oiled by spray.

The oil pump is internal gear type, driven off cam shaft, while an automatic oil control valve regulates oil pressure to prevent over-oiling at high speeds. A bayonet type oil level gauge is on the left side of the engine with a pressure gauge on the instrument panel.

The efficiency of the cooling system in the Willys Eight, also was disclosed in the mountain tests, it is stated. At no time did the engine during the grueling drives over the mountain peaks show any signs of overheating. The radiator is a Fedders cellular type of five gallons capacity, the water being circulated by pump, thermostatically controlled.

The front axle is the reverse Elliot type of heavy "I" beam stock and is drop forged and heat treated for maximum ruggedness and strength. Timken roller bearings in used in the steering knuckle, which aids in the ease of handling the car. Even the slightest pressure to the wheels and bronze bearings are

The steering gear is the cam and lever, semi-irreversible type with a 15 to 1 ratio. Following a practice first inaugurated by Willys-Overland, the Willys eight is equipped with the three-spoke, steel, rubber

(Continued on Page 5)

COMING EVENTS

APRIL

12-27—Milan, Italy. Italian International Automobile Show.
24-25—Cleveland, O. National Petroleum Association meeting.
28-May 3—Henderson, N. C. Automobile Show.

MAY

1-10—Melbourne, Australia. International Motor Show.
8—New York. Society of Automotive Engineers, aeronautic meeting.
23-27—Atlantic City, N. J. American Society for Testing Materials annual meeting.
26-29—French Lick Springs, Ind. Society of Automotive Engineers' summer meeting.
29-July 13—Posen, Poland. International Motor and Transport Show.
30—Indianapolis, Ind. Automobile Race.

JUNE

2-12—Paris, France. Automobile Salon.
16-25—London, England. Olympia Motor Show.

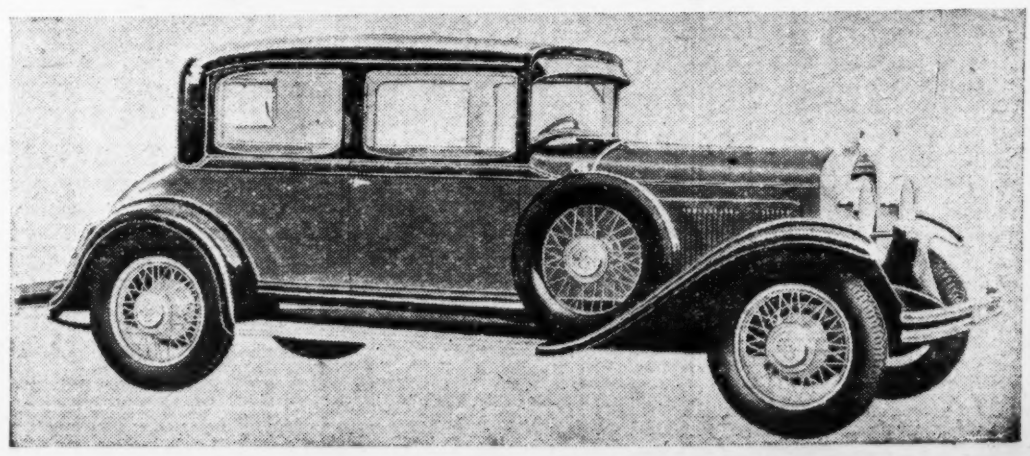
NOVEMBER

10-14—Cleveland, O. Motor and Equipment Association Show.
17-22—Cleveland, O. National Standard Parts Associtaion Show.

DECEMBER

6-17—Brussels, Belgium. Automobile Exhibition.

Willys 8-80 De Luxe Coupe, $1,345



Overland Introduces New Willys Straight 'Eight'

FOUR BODY TYPES AT $1,245-$1,395

Companion Car to Lower Priced Willys Six Announced

(Continued from Page 4)

covered steering wheel, which is recognized as the safest kind of wheel. The wheel is seventeen inches in diameter.

The rear axle is semi-floating, banjo type, pressed steel housing, and has removable inspection plate. The rear axle gear ratio is 4.4 to 1, with provision for an optional ratio of 4.89 to 1.

The frame is of alloy steel with heavy channels of 9-64-inch stock, 2¼ inch flange by 6 inches deep and is rigidly supported by seven strong cross members, two of them being the tubular design.

The heat control, which is manually operated from the instrument panel, provides minimum gas temperatures for maximum work and high temperatures for the warming up period. This feature is especially desirable in the cold winter months.

The large, chromium-plated head lamps have the Twi-lite lens. Double filament bulbs are used.

The decorative instrument panel, which contains the speedometer, oil gauge, ammeter, heat indicator and electric gasoline gauge, is indirectly lighted. Other equipment includes, in addition to the hydraulic shock eliminators and the Mono-control wind shield, the automatic windshield cleaner, rear-view mirror, dome light in sedan, and stop and tail lights on all models.

The introduction of the new Willys eight provides the Willys-Overland Company with complete coverage in every price class, with five different lines of motor cars in as many price classifications. The Whippet four, which features the Whippet sedan as the lowest-priced four-door sedan in the world, covers the lowest-priced group. Next come the Whippet six and the Willys six which cover the low-priced, light six field; this is followed by the Willys-Knight "70-B" in the $1,000 class; the next price class is fully covered by the new Willys eight, while the Willys-Knight Great Six answers the highest demands of quality motoring in the fine car field.

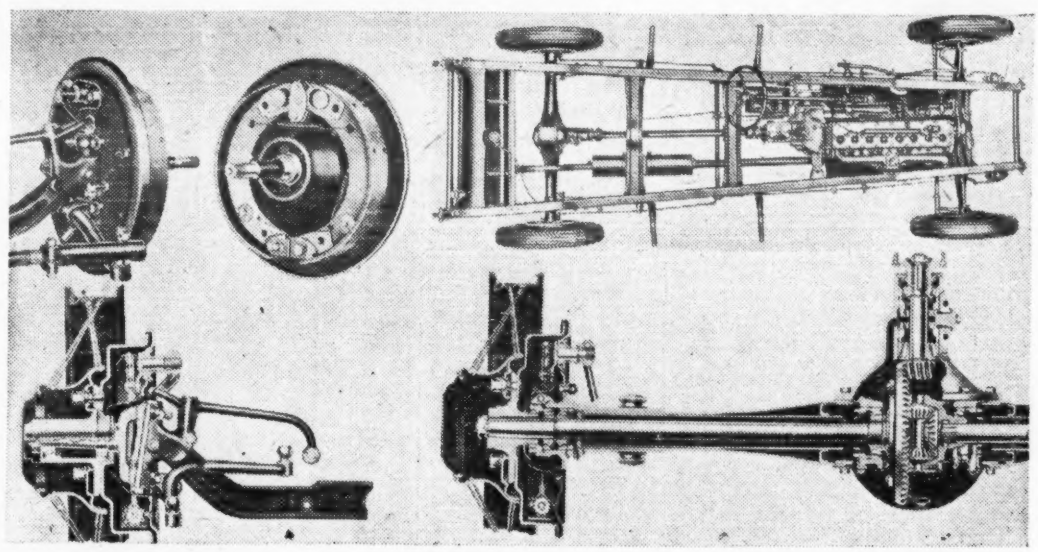
Steady production of the new Willys eight has been under way for several weeks and distribution to the company's nation-wide distributor and dealer organization is now well under way.

Detailed specifications follow:—

CHASSIS — Frame, own; alloy steel, channel section 9-64-inch stock, 2¼-inch flange by 6 inches deep. Seven cross members. Wheel base, 120 inches. Over-all length, 166⅝ inches. Front spring, semi-elliptic, 1¾ inches by 36 inches, chrome-vanadium steel. Rear springs, semi-elliptic, 1¾ inches by 56 inches, chrome-vanadium steel. Tryon spring shackles. Hotchkiss Drive-Thru rear springs. Alemite pressure lubrication to all chassis parts.

WHEELS—Artillery type, twelve-spoke on Standard sedan and coupe. Wire wheels on De Luxe sedan and coupe.

Mechanical Features of the New Willys 8-80



MECHANICAL FEATURES of the new Willys 8-80 include the fully enclosed internal expanding four-wheel brakes shown at the left. In the upper right of the illustration above is shown a plan view of the entire chassis. The rear axle and differential assembly is shown at the lower right

TIRES AND RIMS—29x5.50 balloon tires on Kelsey-Hayes rims; 4-inch base, 19-inch diameter.

FRONT AXLE — Reverse Elliott type, I-beam, drop forged and heat-treated. Timken roller thrust bearing and bronze bearing on steering knuckle. Timken roller bearings in wheels (adjustable).

STEERING GEAR — Cam and lever, semi-irreversible type, ratio 15 to 1. Steering post adjustable, steering wheel, 17-inch diameter, hard rubber, steel reinforced, three spokes.

REAR AXLE — Semi-floating, banjo type pressed steel housing, removable inspection plate. Rear axle gear ratio, 4.4 to 1. Optional ratio 4.89 to 1. Adjustable Timken bearings throughout. Axle shafts removable; diameter at bearings, 1¾ inches. Differential case, one-piece malleable iron. Differential two-pinion type with straight shaft. Spiral bevel ring gear and pinion. Alloy steel. Pinion shaft, stem type.

BRAKES—Four-wheel Bendix Duo Servo, internal expanding, two-shoe type, 12-inch diameter. Total braking area, 187 square inches. Hand brake operates on all four wheels.

PROPELLER SHAFT — Double universal joint type, 2-inch diameter. Universal joints, Mechanics Machine; metal, self-contained oil.

POWER PLANT—Engine, 8-cylinder, L-head type, four-point suspension, rubber insulated. Engine, clutch and transmission in one unit. Cylinder block and upper half of crank case cast en bloc. Hard, gray iron. Cylinder walls honed. Cylinder bore, 3⅛-inch. Stroke, 4-inch. Piston displacement, 245.4 cubic inches. N. A. C. C. horse-power rating, 31.25. Actual horse power, 80 at 3,200 torque; 170 pounds feet at 1,200 r. p. m. Compression ratio, 5.4 to 1 (18½ per cent.). Removable cylinder head.

CRANK SHAFT — Counter balanced, with vibration dampner. Drop forged steel, heat treated, machined and ground. Crank shaft balanced at rest and rotating, five main bearings. Crank shaft bearings—Front, 2⅝ in. diameter, 1 19-32 long; front intermediate, 2⅝ in. diameter, 1¼ in. long; center, 2⅝ in. diameter, 1⅝ in. long; metal backed, babbitt, rear intermediate, 2⅝ in. diameter, 1¼ in. long; lined, interchangeable, rear, 2⅜ in. diameter, 2 5-32 in. long.

CONNECTING RODS — Drop-forged steel, I-beam section, 8 7-16 in. long, heat treated. Centrifugally cast babbitt bearings, 2 1-16 in. diameter, 1 5-16 in. long.

VALVES AND GUIDES — Valve tappet guides in cylinder block. Valve lifters, mushroom type, hardened and ground for quiet operation. Intake valve, nickel chromium steel, 1 17-32 in. diameter head, 21-64 in. lift. Exhaust valve, silchrome steel, 1 15-32 in. diameter head, 21-64 in. lift.

CAM SHAFT—Drop-forged steel, heat-treated. Cams case-hardened and ground to insure quiet valve operation.

Five cam shaft bearings. Front, 2 3/16 inches diameter, 1 5/16 inches long.

Front intermediate, 1 61/64 inches diameter, 23/32 inches long.

Center, 1 15/16 inches diameter, 32/32 inch long.

Rear intermediate, 1 59/64 inches diameter, 23/32 inch long.

Rear, 1 ⅝ inches diameter, 1 1/32 inches long.

Cam shaft driven by silent chain, 1¼ inches wide, 48 links, ½ inch pitch.

PISTONS—Light weight cast iron. Piston pin locked in piston. Bronze diamond-bored piston-pin bearing in connecting rod, 51/64 inch by 1¼ inches. Piston pin, 51/64 inch by 2 15/16 inches. Piston rings, four, three compression rings, above piston pin, 3/32 inch wide. One oil-regulating, 3/16 inch wide, at bottom of skirt.

ENGINE LUBRICATION — Full pressure to crank shaft bearings, connecting rod bearings, cam shaft bearings, piston pin bearings and timing chain. Spray to other engine parts. Oil pump, internal gear type driven off cam shaft. Automatic oil control valve, regulates oil pressure to prevent over-oiling at high speed. Bayonet type oil level gauge, combined with oil filler cap, on left side of engine, pressure gauge on instrument board.

CLUTCH AND TRANSMISSION —Borg & Beck, single plate dry disk clutch. Standard selective sliding gear transmission, double shaft shift, ball type lever, three speeds forward and one reverse. Main shaft mounted on ball bearings, counter shaft on bronze bearings. Gears and shafts of alloy steel. Gear ratios: Low, 3.06—1; second, 1.75—1; high, direct; reverse, 3.76—1.

COOLING SYSTEM — Fedders cellular type radiator, five-gallon capacity. Chromium plated radiator shell. Pump circulation, thermostatic control. Centrifugal type pump, in unit with fan. Four-blade fan, driven by adjustable V-type belt.

FUEL SYSTEM—Gasoline tank at rear, sixteen gallons capacity. Vacuum fuel tank on dash, electrical gasoline gauge on instrument panel. Tillotson vertical pump-well type carburetor on right side of engine. Manually controlled heat to intake manifold.

IGNITION AND LIGHTING — Battery, U. S. L. 6-8 volt, 15 plate, 142 ampere hours. Auto-Lite semi-automatic distributor mounted at left side of engine. Firing order 1—6—2—5—8—3—7—4. Starting motor Auto-Lite swinging brush type Acts on flywheel through Bendix drive pinion. Generator, Auto-Lite, swinging brush type, third brush regulation, driving by V-type adjustable belt. Hi-tension coil with ignition lock mounted on instrument board. Head lamps, chromium plated; parabolic type, Twi-Lite lens, 10⅛ in. diameter. Bulbs, 6-8 volt, two filament 21-21 candle power. Tilt beam. Side lamps, bulbs 6-8 volt, 3 candle power, single contact. Combination tail and stop light, 6-8 volt, double filament, 2-21 candle power, double contact. Dash light indirect 6-8 volt, 3 candle power, single contact.

CONTROLS — Starting motor, lights and horn control at center of steering wheel. Spark, throttle, choke and heat control on instrument board. Ignition (coil) lock on instrument board.

EQUIPMENT—Monroe hydraulic shock eliminators, front and rear; Mono-control windshield, remote door controls. Speedometer, oil gauge, ammeter, heat indicator and electric gasoline gauge attractively grouped on instrument panel. Automatic windshield cleaner, rear view mirror, dome light in sedan, combination stop and tail light. Side lights. High pressure grease gun for lubrication of chassis. Complete set of tools.

CUMULATIVE NEW PASSENGER CAR REGISTRATION TABLE, MARCH, 1930

Figures in this table are from R. L. Polk & Co. of Detroit, with the exception of Illinois, which are supplied by the Robinson Advertising Service, Springfield, Ill., and New Jersey, which are furnished by the New Jersey Motor List Company, New Car Division, Trenton, N. J. Readers desiring county, city or town lists, or lists of owners in any given section, may obtain these by addressing any of these three companies. Some of these data have been published previously, but they are given here complete for the convenience of our subscribers.

Returns for today: South Carolina

States	Auburn	Austin	Black Hawk	Buick	Cadillac	Chevrolet	Chrysler	Cord	DeSoto	Dodge	Durant	Elcar	Erskine	Essex	Ford	Franklin	Gardner	Graham	Hudson	Hupmobile	Jordan	La Salle
Delaware	9			39	6	203	14	1	5	7	16		3	21	387	4			10	6		9
Illinois	152		9	718	66	4754	445	28	419	582	157		87	563	8112	85	36	196	332	283	15	121
N. Dakota	1			18		384	13		14	19	20		9	20	458	1	1	7	14	2		
S. Ca'lina				32		394	26		12	30	3		3	29	699	2		4	12	12		4
Utah	10		1	34	2	309	18	1	18	32	32		10	42	536			10	16	7		2
Wisconsin	26		1	235	11	2483	126	5	89	202	87		44	295	3349	11	6	85	150	54	4	13
Totals	198		11	1076	85	8527	642	35	557	872	315		156	970	13541	103	43	302	534	364	19	149
Del., '29	13			43	7	201	11			6	16		2	64	293	3		7	13	3		18
Illinois, '29	212		1	958	149	5054	554		471	837	243	43	61	1477	6699	52	18	609	531	275	19	142
N. Dak., '29				15		217	12		12	37	25		3	39	334	1		8	5	2		
S. C., '29				47	3	677	29		19	42	5		2	59	1034	3		9	34	11		2
Utah, '29				28	2	394	20		16	67	77		3	97	544	1		34	17	8		2
Wis., '29	17			174	6	1234	69		44	180	40	5	14	380	1450	5	4	90	145	19		11
Totals, '29	242		1	1265	167	7777	695		562	1169	406	48	85	2116	10354	65	22	757	745	318	19	175

States	Lincoln	Marmon	Marquette	Nash	Oakland	Oldsmobile	Packard	Peerless	Pierce-Arrow	Plymouth	Pontiac	Reo	Studebaker	Stutz	Viking	Whippet	Willys	Willys-Knight	Windsor	Miscellaneous	Totals
Delaware	2		5	14	4	18	20		3	11	27	1	7		4	3	9	1			869
Illinois	44	146	59	375	226	608	196	79	47	323	617	82	332	7	36	132	241	190	15	24	20,939
N. Dakota	1	15	4	17	9	22	1			27	37		19			26	19	8			1,186
S. Ca'lina	2	9	6	11	12	12	4			26	27	5	11			7	4				1,398
Utah	4	2	2	19	5	17	6			9	31	2	19		2	4	5	3			1,210
Wisconsin	1	22	46	218	124	236	37	7	13	128	368	20	114	1	3	100	148	28		13	8,903
Totals	54	194	122	654	380	913	264	86	63	524	1107	110	502	8	45	272	426	230	15	37	34,505
Del., '29	2			38	19	15	11	4	2	8	60	2	16			54		10			941
Illinois, '29	69	47		1023	377	660	322	60	22	421	1533	127	609	27		1169		216	26	139	25,252
N. Dak., '29		5		16	6	21	3			27	53	1	12			70		8		8	940
S. C., '29		4		15	19	31	7			39	121	6	9			67		3			2,297
Utah, '29	2	5		32	5	16	11		1	17	67	4	32	2		62		17		3	1,586
Wis., '29	2	10		200	58	195	14	6	1	90	336	14	108	5		316		57		46	5,345
Totals, '29	75	71		1324	484	938	368	70	26	602	2170	154	786	34		1738		311	26	196	36,361

Production--Engineering--Factory

Centrifugal Superchargers

Automotive Daily News is pleased to present herewith the fifth installment of a paper covering a study of centrifugal superchargers which was presented at the meeting of the Society of Automotive Engineers held last week in Detroit in connection with the National Air Show. The paper was prepared by Sanford A. Moss of the Thomson research laboratory of General Electric Company.

POWER LIMIT FOR SUPERCHARGING AT SEA-LEVEL. In all cases it has been easy to supply a supercharger to increase the power of an engine at sea-level to the maximum amount advisable, from the point of view of the engine itself. Some times the limit is detonation and this limit can be increased by the use of anti-knock mixtures or by increase of clearance volume. Some times the limit is the maximum power which the engine will deliver with safety so far as durability is concerned. Engine builders are making gains in this connection and the safe values of engine power are going up. However, some engines will operate for long periods without overhauling if the maximum power is limited and will require more frequent overhauling if this limit is exceeded. Such engines may use superchargers with capacity for emergency or altitude operation with limitation of the amount of supercharging for normal operation.

Sometimes the limit of supercharging is due to temperature rise of the supercharged air due to compression to high supercharger pressures. In this case the limit can be increased by use of an air cooler. Sometimes the limit of supercharging at sea level is the temperature attained by the cylinder with the increased power and the available amount of cooling. In the case of the similar sizes of radial air-cooled engines, this limit has never been reached. As the size of the cylinder decreases, the ratio of surface to volume increases so that the cylinder can radiate a greater amount of heat in proportion. This means that the mean effective pressures on the smaller engines can be increased by using large amounts of supercharging and still maintain safe temperatures. A small radial air-cooled engine with a supercharger thus added to give the maximum desirable power and still maintain safe temperatures, would have a much less cost and weight per horse power than an unsupercharged engine. There is, therefore, a great deal of possibility of progress in the supercharging of small engines.

(To Be Continued)

CLARK

WE could build more, but not better axles than our present

CLARK AXLES

Production demands of the larger passenger vehicle and truck manufacturers have increased our axle production schedules steadily. This marks an ever-growing appreciation of the standard to which we build.

The same precision of design and workmanship produces

CLARK METAL WHEELS with Strength of Steel.

CLARK EQUIPMENT COMPANY
Buchanan Michigan

AXLES Front & Rear
WHEELS Single or Dual Tire
CAST STEEL HOUSINGS
TRANSMISSIONS

Bendix Announces New Service Kits for All Bendix Brakes

The Bendix Brake Company is offering a new tool kit containing all the various items needed for servicing all types of Bendix brakes for passenger cars and trucks. The kit consists of twenty-two special wrenches and other tools. The first of these is a heavy spring tong for removing or installing truck shoe-releasing springs. No. 2 is a socket wrench designed for anchor-pin nuts of Duo Servo brakes. No. 14 is a special anchor-pin nut wrench, to be used in connection with one and a half Duo Servo truck brakes, and No. 6 is a special tool for turning the adjusting screw of Bendix Duo Servo brakes. Numbers 16 to 21 are tools used for servicing hydraulic brakes.

BINKS ANNOUNCES NEW THOR PORTABLE OUTFIT

The Binks Manufacturing Company, 3114-40 Carroll Ave., Chicago, manufacturers of all types of spray painting equipment, announces the new Thor 2-E portable outfit.

This portable unit has been manufactured to meet the requirements of master painters, decorators and builders who need an outfit for medium and small painting jobs in residences, stores, theaters, public buildings and for refinishing furniture, store, office and home equipment of all kinds.

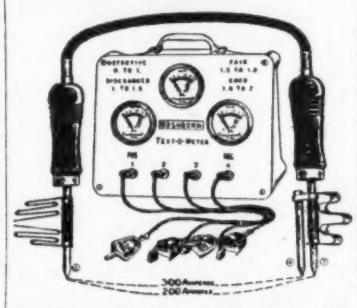
It is easily portable by one person, yet it is of sufficient size to produce quality work at surprising speed. It operates economically from any light socket.

The air compressor unit is belt-driven and connected to a one-half horse power General Electric motor. It has an air displacement of 3.5 cubic feet of air per minute.

This complete outfit is equipped with the Binks No. 345 spray gun, two-gallon pressure material container and the necessary lengths of air and material hose.

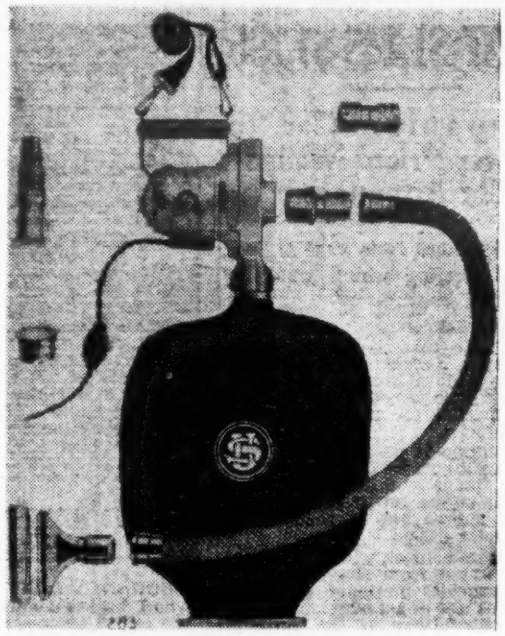
WASHBURN ADDS NEW BATTERY TESTING EQUIPMENT

The Washburn Manufacturing Company, Kokomo, Ind., is offering its new Washburn Test-o-Meter, designed to meet the demand for a high-class instrument at a reasonable price, in this case $19.50. The panel size of this instrument is 9-1x4x7x¼. The meters give a reading .3-0-2.5 volts, scaled so that they



can be used for making the cadmium test. The discharge prods are ruggedly constructed and are designed to pass 200 or 300 amperes at six volts. The shipping weight of the device is twelve pounds. The company also offers cadmium prods for use with the 570 meters. Flexible wire leads are furnished with spring terminals, so that they are easily attached to posts on the instrument panel. Prods are made of cadmium steel plate, mounted on a black enamel handle. Another item on the company's new list is the Washburn Junior battery cell tester.

This instrument is made of high-grade steel. Across the prods is a high-grade resistance metal, which will pass approximately 200 amperes at two volts. The meter gives a reading 3-0-3 volts and is mounted on the handle of the instrument by a substantial steel bracket and connected to the prods by rubber-covered wire leads. The handle of the instrument is of black enamel. The Junior sells at $4.25, and the shipping weight is two pounds.



U. S. ELECTRIC TOOL ADDS CLEANER AND BLOWER

A new tool that cleans either by suction or by blowing is made available through jobbers by the United States Electrical Tool Company, the world's first builders of portable electric tools.

It picks up dust and other free dirt wherever the tool's nozzle or brush can penetrate, and, simply by removing the dust bag and changing the location of the hose, it blows dust from the places hard to get at, such as inside motors, machines and switchboards.

One of the features which is emphasized on this tool is the lease of handling. By hanging the motor and fan over one's shoulder or on a convenient hook, the operator can, it is claimed, get into places not possible with the old type blowers, and can work tirelessly because of the absence of weight.

The cleaner comes in two sizes, complete with hose, nozzle, brush, canvas bag and shoulder strap. The No. 1 size (7½ pounds net weight) lists at $48 and the No. 2 size (9½ pounds) at $58. Universal motor in each operates on alternating or direct current. The body is aluminum, and quick-make, quick-break switch safeguards against short circuits.

ALLEN IS HONORED

Jersey City, N. J., April 17.—Harry N. Allen of the Mack-International Motor Truck Company of Jersey City, was elected by the Hudson County Safety Council as vice-president, in charge of public safety. E. M. Cabaniss, superintendent of the Joseph Dixon Crucible Company, was elected vice-president, in charge of membership.

WISCONSIN AXLES

Experience is continually pointing out the low operating expense of Wisconsin Axles.

WISCONSIN AXLE CO.
Oshkosh Wisconsin

Cumulative New Commercial Car Registration Table, March, 1930

Returns for today: South Carolina.

Some of this data has been published previously, but it is given here complete for the convenience of our subscribers.

Figures in this table are from R. L. Polk & Co. of Detroit, with the exception of Illinois, which are supplied by the Robinson Advertising Service, Springfield, Ill., and New Jersey, which are furnished by the New Jersey Motor List Co., New Car Division, Trenton, N. J. Readers desiring county, city or town lists, or lists of owners in any given section, may obtain these by addressing any of these three companies. Commercial Car Registrations do not include buses.

States	Autocar	Brockway-Indiana	Chevrolet	Diamond-T	Dodge	Dover	Fargo	Federal	Ford	G. M. C.	International	Mack	Paige	Pierce-Arrow	Relay	Reo	Republic	Rugby	Sterling	Stewart	Studebaker	Whippet	White	Willys	Willys-Knight	Miscellaneous	Totals	States
Arkansas			118		9				149	9	26	2	1			2		1					5	2			324	Arkansas
Delaware	9	4	47		3				60	8	6	2				1				2							142	Delaware
Illinois	5	9	723	77	71	1	9	16	944	61	218	24			5	35	2		15	6		21	25		22	97	2386	Illinois
N. Dakota			68	3	5		4		80	2	34					1		1				2		5		1	206	N. Dak.
S. Carolina			129		9		1		121	4	3	1				1	1					1	2				273	S. Car.
Utah			75		7				119	7	11					8		2				1	2			2	234	Utah
Wisconsin		4	482	11	36	1	5	14	543	22	80		1			24		1	3	7	2	12	4	18	2	26	1298	Wis.
Totals	14	17	1642	91	140	2	19	30	2016	113	378	29	2		5	72	3	5	18	15	2	37	38	25	24	126	4863	Totals
Ark., 1929			217	1	19		1		229	4	25					3					1	1	4			2	507	Ark., 1929
Del., 1929			65		4				57	11	7	1		2		4	1	1					4				157	Del., 1929
Ill., 1929	10	18	992	144	185		10	25	1145	91	267	42		1	1	80	2		17	5		24	28			136	3223	Ill., 1929
N. Dak., '29			68		8			2	56	10	62			1		6		1				2				10	226	N. D., '29
S. Car., 1929		1	186		23			9	113	5	10	1											1				349	S. Car., '29
Utah, 1929			61		11		1		108	3	13	3				4		2			1	1	4			1	213	Utah, '29
Wis., 1929			366	18	46		4	13	355	20	66	3		2	1	14			7	7	5	5	7		1	22	962	Wis., 1929
Totals, 1929	10	19	1955	163	296		16	49	2063	144	450	50		6	2	111	3	4	24	12	7	33	48		1	171	5637	Total, 1929

MERCHANDISING ACCESSORIES EQUIPMENT **WHOLESALE** DISTRIBUTION SHOP EQUIPMENT REPLACEMENTS

"Window Service Station" Pays Speedometer Expert

Philadelphia Wholesaler Holds That Horn-Tuning Requires Musical Ear.

By K. H. LANSING

AUTOMATIC windshield cleaner and horn sales and service, both for the dealer and garage trade and for the direct consumer, are important parts of the extensive business of "Billy the Speedometer Man"—William E. Driver, 518 North Broad St., Philadelphia. Although speedometer service and sales constitute the greater part of the business, owing to his long-established reputation as the fastest speedometer repairer in Pennsylvania, Billy has developed the windshield and horn department work, through expert mechanics and careful supervision, until it has become a highly specialized and lucrative service.

"Take the special double-type of windshield cleaner, the Vision-All, for example, that wipes all the way across the glass," says Driver. "When this installation job is done as it should be, with the cleaner tubing concealed in the upholstery, instead of being left exposed, it is a neat piece of work, and the customer who has been used to careless installation is certain to appreciate it and give us his patronage on other work in our line he may need done for him. We have in our shop four very capable mechanics specializing on windshield and horn work.

"Horn installation is another job that requires expert handling to be fully satisfactory. One of the special points in the careful mounting of the better types of horns is to use laminated brackets to eliminate vibrations, and judgment has to be exercised in carrying out a three-wire system properly.

"This may sound like a comedy skit," continued Driver, "but it's fact that some of the most expert repair men on horns are totally unable to tune them. It takes a musical ear to do this right, in the case of the bugle and chimes types. The tones may be either too high or too low, unless some one with an ear for music does the tuning."

Billy and his son, Billy, Jr., both of whom play in bands, the senior Driver also being a minstrel performer of recognized ability, tune the musical horns.

"The man in the street with a musical ear," says Driver, "knows at once whether an automobile horn has been tuned properly, and if it has not, the effect is jarring."

Trade-getting display window stunts frequently are used by Driver. He is just reviving one, with additional new angles, which he employed successfully two years ago. Starting on Monday, March 31, to continue for from two weeks to a month, according to the interest it arouses, Billy moved into his big show window, fronting on North Broad Street, his division of shop work on recording instruments, such as speedometers, tachometers, hubodometers, taximeters and the like. Here four men are to be seen at work in full view of the large motoring and pedestrian crowds that pass this point all day long. Each mechanic has his work bench, and there are also four men engaged in removing and installing devices for customers' cars.

A high light of the show window exhibit is as follows: Oblong "job" boxes of uniform size, painted black and chalked on the front in white with the names of the customers whose work is in progress, are placed on each mechanic's bench, the more prominent the concern or individual, the larger the chalked name, for advertising purposes.

When back in the shop proper, these "job" boxes bear on their fronts not the customer's name, but the job number. Hundreds of them are used there as containers for the smaller work, such as speedometers, automobile clocks and stop-lights, and are found especially useful in keeping each job intact, preventing mix-ups. When a job has been completed, the box is placed on shop rack. Until the completion of the job the repair department's job form copy stays in the job box, after which it is filed by the mechanic.

"We invite spectators inside the showroom," says Billy, "when enough interest is evident, and offer to let them watch the work from a closer point of view. This often affords us the opportunity of making to motorists an exchange proposition that has proved valuable. For example, by such a deal we can get list price on an article, less $1 to $1.50. While we are unable to use the traded-in device as a whole, ordinarily we can use a number of good parts therefrom in our repair operations."

Driver has his men make tests free of charge for motorists, when desired, and sometimes those wishing tests come from the crowds about the window, some of these eventually becoming customers. Besides a number of speedometer testers of varying types, Driver has a tester which he assembled himself on an original plan, whereon speedometers of any make can be accurately tested. This device can be used for any speedometer when the others are occupied.

One means of building good will through advertising is the occasional distribution, to a selected list, of useful souvenirs, such as real leather key containers, stamped in gold with Driver's trade name; thermometers in the shape of speedometers, and perpetual calendars.

"Billy" Believes in Signs and Plenty of Them

HERE IS BILLY'S place of business, at 518 North Broad St., Philadelphia, with most of the force assembled outside

Editor's Column

JOBBERS are interested in recent trends in retailing which have centered an increasing amount of attention on the new status of basement departments and the significant changes in the merchandising of these sections which have been developing.

The volume done in the basement departments of leading stores throughout the country is large, ranging from $9,000,000 annually to $25,000,000 in the case of four leading stores, according to a prominent merchandise manager of such a department. Taking department stores generally, he said, the basement departments account for 10 to 25 per cent. of the total volume, with the average for a big store being from 20 to 25 per cent. Automotive jobbers are studying such angles on merchandising so as to pass on to their dealers any information that will help increase the retail sales.

"Originally," one executive said, "the basement department represented an experiment on the part of a few alert merchants. It was a 'bargain basement' in which job and bankrupt lots, seconds and irregular merchandise were offered customers. This conception continued until after the war and the business flourished.

"Then economic conditions began to force a change. Production was regulated on a more scientific basis and huge lots of close-outs were not available. The emphasis on cheapness began to diminish. The restriction on immigration cut down the number of people interested solely in price and the automobile, motion picture, and radio began to influence the rank and file of the American people to demand style, color and good taste in merchandise. This affected the basement department as well as the upstairs sections, and the cumulative effect today has caused the old-time bargain basement virtually to disappear.

"Under these new conditions the realization has been growing that an entirely different type of merchandise operation is now needed. Scientific principles should be the guide, rather than the former catch-as-catch-can methods or hunches. The customers of downstairs departments today are fully as appreciative of courteous treatment, cleanliness, brightness of surroundings and service as those dealing in the upper sections of the store.

"The fundamentals of a good basement department, as I see them, are three. One is that the price lines should range a little lower than those prevailing upstairs. Second, the merchandise must be carefully chosen as to size, color and taste. Third, there must be more aggressive promotion. Standards of performance based on these elements are being set up for the first time. By means of group action and study the sound principles of basement merchandising can be further developed. Such standards could not be set up when individual sharpshooting was the rule. Today market conditions are discussed by groups of stores and group buying of staple basement lines is on the increase."

There are enough customers to warrant cleanliness, attractiveness of merchandise and service of a type perhaps not quite as good as those prevailing in upstairs departments, but almost as good. That is the secret of profitable basement merchandising today.

PISTON RING SALES IN MARCH EXCEED FEBRUARY

Hagerstown, Ind., April 17. — March proved to be the best month of 1930 thus far for the sale of Perfect Circle piston rings, according to C. N. Teetor, president and general manager of the Perfect Circle Company.

Sales for March increased 22.78 per cent. over February, while February showed an increase of over 25 per cent. over January. April is expected to be an even better month than March, due to the increased new car production.

The replacement sales through automotive jobbers have registered a marked improvement each month of 1930, and sales figures for the first quarter of 1930 disclose a substantial gain over the first quarter of 1929.

CHAIN BELT APPOINTS EVERETT CO., HOUSTON

Milwaukee, April 17.—Chain Belt Company has recently announced the appointment of the R. B. Everett Company of Houston, Tex., as distributor for its complete line of Rex construction equipment, including Rex saw rigs, Rex plaster and mortar mixers, Rex pumps, self-priming centrifugals, diaphragms, centrifugals and road pumps.

AMERICAN BOSCH APPOINTS JOBBERS, SERVICE STATIONS

NEW YORK, April 17.—The American Bosch Magneto Corporation of Springfield, Mass., announces the following automotive appointments from April 1 to April 12:

Service Stations—Duncan Electric Company, Duncan, Okla.; Nelson Garage, Watertown, S. D.; Motor Service Company, Inc., Salina, Kan.

Foreign Service Station — Jaime Villalonga Garcia, Cienfuegos, Cuba.

Replacement Parts Distributors—Quincy Auto Supply Company, 126 Washington St., Quincy, Mass.; Hagerstown Auto Parts Company, 66 West Franklin St., Hagerstown, Md.; Automotive Electric Service Corporation, 106 West 63d St., New York.

Automotive Wholesalers — Cabana & Jonnston, Grand Rapids, Mich.; Southern Minnesota Motor Supply Company, Mankatao, Minn.

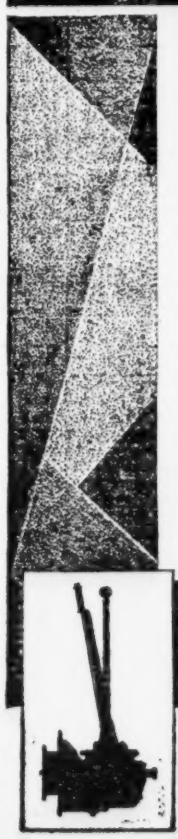
MOVES MECHANICAL DEPT.

Norfolk, Va., April 17.—The Norfolk Motor Equipment company has recently moved its mechanical service department from the second floor to the main floor. This was done in order to acquaint customers with the department. This department was very successful even on the upper floor and the distributor feels that if more repairmen are aware of its existence it will be even more successful.

CLASSIFIED ADVERTISEMENTS IN THE AUTOMOTIVE DAILY NEWS BRING RESULTS

BACKED BY 28 YRS. QUALITY EXPERIENCE

FULLER— AMERICA'S LARGEST EXCLUSIVE BUILDERS OF COMMERCIAL CAR TRANSMISSIONS



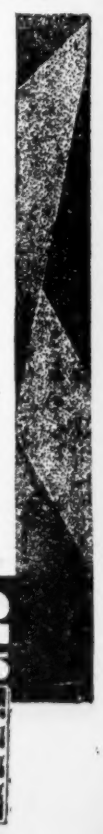
EVERY detail of a Fuller transmission is designed and calculated with utmost accuracy — backed by 28 years' experience in manufacturing commercial car transmissions.

This past experience enables Fuller engineers to forecast transmission performance with absolute certainty and safety. Our recommendations are based upon proven principles.

Be protected by the name FULLER on the transmission of the truck, bus or taxicab that you build, sell or operate. It is positive assurance of long-life performance—low cost operation—dependable service.

If you have a commercial vehicle transmission problem, the experience of 28 years' proved performance is available—FULLER engineers will gladly consult with you when either standard or special transmissions are being considered.

FULLER AND SONS MFG. COMPANY
Division Unit Corporation of America
BANKERS BLDG. MILWAUKEE, WIS.



FULLER TRANSMISSIONS

Engineers Manual "Low Cost Transmission Service" mailed on request.

MAJOR SPECIFICATIONS AND MECHANICAL DETAILS OF

Make and Model	Capacity—Tons	Chassis Price	Engine	No. of Cyl.	Bore and Stroke	Tax H. P.	Oil System	Carburetor	Fuel Feed	Ignit. System	Gear Set	Location	No. Spds. For.	Rear Axle	Final Drive	Reduction in Low	Brakes, Foot	Brakes, Hand	Standard Wheel Base	Chassis Weight	Standard Tire Sizes Front	Rear
Am. La France Chief	2	3650	Own	6	3¾x5	33.0	Pw	Str	Vac	DR	Own	C	4	Tim	Wo	31.2	4	D	156	6200	32x6	32x6D
Am. La France W	3-4	3950	Own 2 R	4	4¼x6	28.9	CS	Zen	Vac	AB	Own	C	4	Own	2R	47.4	4	R	160	7200	S36x5	S36x5D
Am. La Fran. Chieftain	3-4	5500	Own	6	4⅛x5⅛	40.8	Pw	Zen	Vac	DR	Own	C	4	Tim	Wo	28.8	4	D	175	7200	S36x8	36x8D
Am. La France V	5	5500	Own 5 R	4	4⅜x6	36.2	CS	Zen	Vac	AB	Own	C	4	Own	Wo	54.4	4	R	165	9800	S36x5	S40x6D
Am. La France Z	6½	5750	Own 5 R	4	4⅜x6	36.2	CS	Zen	Vac	AB	Own	C	4	Own	Wo	63.5	4	R	165	10000	S36x7	S40x7D
Am. La France U	7½	6000	Own 5 R	4	4⅜x6	36.2	CS	Zen	Vac	AB	Own	C	4	Own	—	63.5	4	R	165	10500	S36x7	S40x8D
Am. La Fran. Big Chief	6	6725	Own	6	4½x6	48.6	Pw	Zen	Vac	DR	Own	C	4	Own	2R	32.8	4W	D	226	10600	S40x8	S40x8D
Autocar S A	1½	2700	Her	6	3¾x4½	33.8	Pb	Zen	Vac	L-N	Br-L 35	U	4	Own S A	Sp	27.9	4	R	150	4400	32x6	32x6
Autocar S D	2	3000	Her	6	3¾x4½	33.8	Pb	Zen	Vac	L-N	Br-L 35	U	4	Own S D	2R	33.9	4	R	150	4850	32x6	32x6D
†Autocar H	3	3750	Own	6	4¼x4¾	32.4	CS	Str	Gra	AB	Own T	U	4	Own H	2R	48.9	R	R	114	5800	34x5S	36x10S
†Autocar S H	3	4000	Own	6	4¼x4¾	43.4	Pb	Str	Gra	RB	Own T	U	4	Own H	2R	48.9	R	R	114	5800	34x5S	36x10S
Autocar T	3	5000	Own	6	4¼x4¾	48.6	Pb	Str	Vac	RB	Own T	U	4	Own T	2R	72.5	R	R	187	7100	36x8	36x8D
†Autocar H S	3½	4100	Own	6	4¼x4¾	32.4	CS	Str	Gra	AB	Own T	U	4	Own J	2R	55.2	R	R	114	6900	34x6S	36x12S
†Autocar S H S	3½	4400	Own	6	4¼x4¾	48.6	Pb	Str	Gra	RB	Own T	U	4	Own J	2R	55.2	R	R	114	7000	34x6S	36x12S
Autocar T S	3½	5350	Own	6	4¼x4¾	48.6	Pb	Str	Vac	RB	Own T	U	4	Own Chs	2R	81.7	R	R	187	7100	36x8	36x8D
Autocar S C M	5	5000	Own	6	4¼x4¾	48.6	Pb	Str	Vac	RB	Own B	C	4	Own M	2R	72.1	R	R	162	8600	34x7S	36x14S
Brockway 65	1	1195	Con 27 B	6	3⅜x4⅝	27.3	Pb	Zen	Vac	Aut	Br-L 20	U	3	Col 36000	Sp	21.3	4	Tr	137	3400	30x5	30x5
Brockway 75	1¼	1290	Con 27 B	6	3⅜x4⅝	27.3	Pb	Zen	Vac	Aut	Br-L 20-4	U	4	Col 36000	Sp	25.6	4	Tr	137	3450	32x6	32x6
Brockway 90	1½	1525	Con 27 B	6	3⅜x4⅝	27.3	Pb	Zen	Vac	Aut	Br-L 20-4	U	4	Col 55000	Sp	25.6	4	Tr	149	3850	32x6	32x6
Brockway JR	1¼	1195	Wis C	4	3¾x5	22.5	Pb	Zen	Vac	Aut	Br-L 20	U	3	Col 36001	Sp	21.3	4	Tr	130	3100	30x5	30x5
Brockway E 45	1½	1765	Wis S U	4	4 x5	25.6	Pb	Zen	Vac	L-N	Br-L 30	U	3	Col 55001	Sp	21.0	4	Tr	139½	3650	32x6	32x6
Brockway KW	3	4100	Wis H	6	4 x5	38.2	Pb	Zen	Vac	L-N	Br-L 51	U	4	Wis 1228	2R	33.7	R	Dr	170	6920	34x7	34x7D
Brockway R	4	4200	Con L 4	4	4½x5½	32.4	Pw	Zen	Vac	Eis	Br-L 55	C	4	Tim 66600	Wo	46.8	R	R	164	7890	36x5S	36x12S
Brockway RT	4	4850	Con B 7	4	5 x6	40.0	Pw	Zen	Vac	Eis	Br-L 60	C	4	Tim 66700 S	Wo	53.5	RV	Dr	175	8100	36x5S	36x12S
Brockway 120	2	1990	Con 30 B	6	4 x4⅛	38.4	Pb	Zen	P	Aut	Br-L 35	U	4	Tim 54100	Sp	—	4	Tr	156	5200	32x6	32x6D
Brockway 140	2	2495	Con 30 E	6	4 x4⅛	38.4	Pb	Zen	P	Aut	Br-L 35	U	4	Wis 4916 L	2R	—	4W	Tr	156	5500	32x6	32x6D
Brockway 290	7	7250	Con 36 B	6	4¾x5¾	54.15	Pb	Str	P	L-N	Br-L 70-7	C	7	Tim 68703 D	Wo	—	4W	Dr	182	10750	38x7	40x14S
Brockway 640	10	9700	Con 36 B	6	4¾x5¾	54.15	Pb	Str	P	L-N	Br-L 70-7	C	7	Tim S W 400	Wo	—	4W	Dr	212	14000	38x7	36x10S
Brockway T	5-7	5200	Con B 7	4	5 x6	40.0	Pw	Zen	Vac	Eis	Br-L 60	C	4	Tim 68700	Wo	53.5	R	Dr	175	10065	36x6S	36x14S
Chevrolet	½	365	Own	6	3⅛x3¾	26.3	CS	Car	P	DR	Own	U	3	Own	Sp	12.68	4	R	107	1815	4.50x20	4.50x20
Chevrolet	1½	550	Own	6	3⅛x3¾	26.3	CS	Car	P	DR	Own	U	4	Own	Sp	6.165	4	R	131	2375	30x5	30x5
Day Elder M F	1¼	1345	Con 16-C	6	3⅜x4⅜	27.3	Pb	Zen	Vac	DR	Br-L	U	4	Tim 52000 H	Sp	24.2	4	D	131	3500	30x5	30x5
Day Elder G F	1½	2050	Con 16-C	6	3⅜x4⅜	27.3	Pb	Zen	Vac	DR	Br-L	U	4	Tim 54000 H	Sp	28.3	4	D	156	4400	30x5	30x5D
Day Elder H F	2	2500	Con 16-C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	DR	Br-L 35	U	4	Tim 63702 H	Wo	40.7	4	D	156	4900	S34x4	S34x7
Day Elder J F	3	3900	Con 18 R	6	4 x4½	38.4	Pb	Zen	Vac	DR	Br-L 51	U	4	Tim 65001 H	Wo	41.5	4	D	156	7000	34x7	34x7D
Day Elder K F	4-5	5000	Con 21 R	6	4⅜x4¾	45.9	Pb	Zen	Vac	DR	Br-L 60	C	4	Tim 66702 DH	Wo	55.2	4	D	162	9200	S36x5	S36x12
Day Elder N 6 W	7	6000	Con 21 R	6	4⅜x4¾	45.9	Pb	Zen	Vac	DR	Br-L 60	C	7	Tim SW 200 H	Wo	73.6	6	D	204	10000	34x7	34x7D
Diamond T 200	1	785	Bud	4	3¾x4½	22.5	Pw	Zen	P	Aut	W-G	U	4	Cla	Sp	—	4	D	128½	3050	30x5	30x5
Diamond T 215	1	885	Bud	6	3⅜x4	27.3	Pw	Zen	P	Aut	W-G	U	4	Cla	Sp	—	4	D	135½	3150	30x5	30x5
Diamond T 290	1½	1475	Her WXA 2	6	3½x4½	29.4	Pb	Zen	Vac	Aut	Cov	U	4	Col	Sp	—	4	D	156¼	4160	30x5	30x5D
Diamond T 303	2	1745	Her WXB	6	3¾x4½	33.7	Pb	Zen	Vac	Aut	Cov	U	4	Tim	Sp	—	4	D	160½	4850	32x6	32x6D
Diamond T 551	2½	2250	Her WXC	6	4 x4½	38.4	Pb	Zen	Vac	Aut	Cov	U	4	Tim	Sp	—	4	D	168	5600	32x6	32x6D
Diamond T 503	2½	2660	Her WXC	6	4 x4½	38.4	Pb	Zen	Vac	Aut	Cov	U	4	Tim	Wo	—	4	D	174	6200	34x7	34x7D
Diamond T 506	2½	2820	Her WXC	6	4 x4½	38.4	Pb	Zen	Vac	Aut	Cov	U	4	Wis	2R	—	4	D	172½	6200	34x7	34x7D
Diamond T 602	3	3440	Her YXC	6	4⅜x4¾	45.9	Pb	Zen	Gra	Aut	Cov	C	4	Tim	Wo	—	4	D	169½	7500	36x8	36x8D
Diamond T 606	3	3500	Her YXC	6	4⅜x4¾	45.9	Pb	Zen	Gra	Aut	Cov	U	4	Wis	2R	—	4	D	186	7500	36x8	36x8D
Diamond T 700	3½	3740	Her YXC	6	4⅜x4¾	45.9	Pb	Zen	Gra	Aut	Cov	C	4	Tim	Wo	—	R	D	162	8100	S36x5	S36x10
Diamond T 801	4	4140	Her YXC	6	4⅜x4¾	45.9	Pb	Zen	Gra	Aut	Br-L	C	7	Own	Wo	—	6WH	D	189½	8300	36x8	4 wh 36x8
Diamond T 1000	5	4420	Her YXC 2	6	4½x4¾	48.6	Pb	Zen	Gra	Aut	Br-L	C	4	Tim	Wo	—	R	D	170½	9700	S36x6	S40x12
Diamond T 1600	8	6260	Her YXC 3	6	4⅝x4¾	51.3	Pb	Zen	Gra	Aut	Br-L	C	7	Tim	Wo	—	4W	D	190	11700	36x8	4 wh 36x8D
Diamond T 2500	10-12	8000	Wak 6 RB	6	5 x5¾	60	Pb	Zen	Gra	Mag	Br-L	C	7	Tim	Wo	—	4W	D	194	13100	S36x7	4 wh 36x12S
Dodge Bros. U-1	½	545	Own	4	3⅝x4¼	21.3	Pb	Car	Vac	NE	Own	U	3	Own	Sp	14.28	4	D	109	1900	5.00x20B	5.00x20B
Dodge Bros. U-1	¾	695	Own	4	3⅝x4¼	21.3	Pb	Car	Vac	NE	Own	U	3	Own	Sp	21.68	4	D	124	2460	5.50x20B	5.50x20B
Dodge Bros. U-1	1	795	Own	4	3⅝x4¼	21.3	Pb	Car	Vac	NE	Own	U	4	Own	Sp	36.136	4	D	133	2750	6.00x20B	32x6
Dodge Bros. DA1	¾	795	Own	6	3⅜x3⅞	27.3	Pb	Zen	Vac	NE	Own	U	3	Own	Sp	19.21	4	D	124	2560	5.50x20B	5.50x20B
Dodge Bros. DA1	1	895	Own	6	3⅜x3⅞	27.3	Pb	Zen	Vac	NE	Own	U	4	Own	Sp	33.45	4	D	133	2850	6.00x20B	32x6
Dodge Bros. DA1	1	1095	Own	6	3⅜x3⅞	27.3	Pb	Zen	Vac	NE	Own	U	4	Own	Sp	36.83	4	D	140	2955	30x5	30x5
Dodge Bros. DA1	1½	1365	Own	6	3⅜x3⅞	27.3	Pb	Zen	Vac	NE	Own	U	4	Own	Sp	36.83	4	D	150	3695	32x6	32x6
Dodge Bros. DA1	1½	1415	Own	6	3⅜x3⅞	27.3	Pb	Zen	Vac	NE	Own	U	4	Own	Sp	36.83	4	D	165	3810	32x6	32x6
Dodge Bros. DB1	2	1595	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	NE	Own	U	4	Own	Sp	36.83	4	D	150	3930	32x6	34x7
Dodge Bros. DB1	2	1645	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	NE	Own	U	4	Own	Sp	36.83	4	D	165	4070	32x6	34x7
Dodge Bros. DB1	3	1845	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	NE	Own	U	4	Own	Sp	46.31	4	D	135	4235	32x6	32x6D
Dodge Bros. DB1	3	1895	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	NE	Own	U	4	Own	Sp	41.43	4	D	165	4520	32x6	32x6D
Dodge Bros. DB1	3	1945	Own	6	3⅜x4½	27.3	Pb	Zen	Vac	NE	Own	U	4	Own	Sp	46.31	4	D	185	4715	32x6	32x6D
Dover	¾	595	Own	6	2¾x4½	18.27	Pb	Mar	Vac	Aut	Own	U	3	Own	Sp	—	4	4	110	2150	30x5	31x5.50
Durant Com. Chassis	½	495	Con	4	3⅜x4¼	18.2	Pb	Til	Vac	Aut	Own	C	3	Own	Sp	16.16	4	4	107	1670	28x4.75	28x4.75
Fargo Packet	½	545	Own	6	3 x4⅛	21.6	Pb	Str	Vac	NE	Own	U	3	Own	Sp	14.29	4	Tr	——	1835	5.00x19	5.00x19
Fargo Clipper	¾	725	Own	6	3⅛x4¼	23.4	Pb	Str	Vac	DR	Own	U	3	Own	Sp	15.53	4	Tr	——	2325	5.50x18	5.50x18
Fargo Freighter	1	795	Own	6	3 x4⅛	21.6	Pb	Str	Vac	NE	Own	U	4	Own	Sp	37.19	4	Tr	——	2785	6.00x20	32x6
Federal 4FW	1	980	Wak X A	4	3½x4½	19.6	Pb	Zen	Vac	DR	W-G T9	U	4	Cla B370	Sp	40.8	4	Tr	127	2975	30x5	30x5
Federal E6	1	1090	Con 17 E	6	3⅜x4	27.3	Pb	Zen	P	DR	W-G T9	U	4	Cla B370	Sp	34.6	4	Tr	132	3120	30x5	30x5
Federal F7	1½	1525	Con 16 C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	DR	Own	U	4	Tim 52005H	Sp	24.3	4	Tr	132	3750	30x5	30x5D
Federal A6	2	1855	Con 16 C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	DR	Own	C	4	Cla B610	Sp	38.5	4	Tr	151	4580	32x6	32x6D
Federal A6T	2½	2185	Con 16 C	6	3⅜x4⅝	27.3	Pb	Zen	Vac	DR	Own	C	4	Tim 58000H	Sp	41.3	4	Tr	151	4950	32x6	32x6D
Federal T10P	2½-3	2740	Con 16 R	6	4 x4¼	38.4	Pb	Zen	Vac	DR	Own	C	4	Tim 58000H	Sp	36.3	4	Tr	165	6600	34x7	34x7D
Federal T10W	2½-3	2915	Con 16 R	6	4 x4⅛	38.4	Pb	Zen	Vac	DR	Own	C	4	Tim 65001H	Wo	44.0	4	Tr	165	6600	34x7	34x7D
Federal U6	3-3½	3860	Con 18 R	6	4 x4½	38.4	Pb	Str	Vac	DR	Br-L 55	C	7	Tim 65706HP	Wo	64.6	4	D	165	7210	34x7	34x7D
Federal 4C6A	4-5	4735	Con 20 R	6	4⅛x4¾	40.8	Pb	Zen	Vac	DR	Br-L 55	C	7	Tim 66704HP	Wo	73.6	4	D	192	8330	36x8	36x8D
Federal 4C6AB	4-5	4960	Con 20 R	6	4⅛x4¾	40.8	Pb	Zen	Vac	DR	Br-L 55	C	7	Tim 66704TWP	Wo	73.6	4W	D	192	8600	36x8	36x3D
Federal X8	7½	5085	Con B 7	4	5 x6	40	Pw	Zen	Vac	AB	Br-L 60	C	7	Tim 68700DP	Wo	110.9	R	D	162	9750	36x6S	40x14S
Federal X8R	7½	5810	Con 21 R	6	4⅜x4¾	45.9	Pb	Zen	Vac	DR	Br-L 60	C	7	Tim 68700DP	Wo	110.9	R	D	162	10000	40x8	40x8D
Ford A A	1½	520	Own	4	3⅞x4¼	24.0	Sp	Zen	Gra	Own	Own	U	4	Own	St	42.24	4	4	131½	2792	6.00x20	32x6
F. W. D.—H	1½	3300	Wis S U	4	4 x5	25.6	Pb	Zen	Vac	Eis	Cotta	C	4	Own	St	38.1	4	R	121	5300	34x7	34x7
F. W. D.—H 6	2	3425	Wak	6	3½x4½	29.4	Pb	Zen	Vac	Eis	Br-L	U	4	Own	St	35.0	4	R	133	5500	34x7	34x7
F. W. D.—BTL 4	2	3900	Wis S U	4	4 x5	25.6	Pb	Zen	Vac	Eis	Br-L	C	7	Own	St	84.7	4	R	120	6000	36x8	36x8
F. W. D.—HH 6	2½	4000	Wak	6	3¾x4½	33.7	Pb	Zen	Vac	Eis	Br-L	C	7	Own	St	101.0	4	R	133	5700	36x8	36x8
F. W. D.—B	3	4200	Own	4	4¾x5½	36.1	Pb	Str	Gra	Eis	Own	C	3	Own	St	35.6	4	R	124	6460	36x6S	36x6S
F. W. D.—B 5	3	4525	Own	4	4¾x5½	36.1	Pb	Str	Gra	Eis	Own	C	5	Own	St	88.6	4	R	132	6800	36x6S	36x6S
F. W. D.—B T	3	4742	Own	4	4¾x5½	36.1	Pb	Str	Vac	Eis	Own	C	5	Own	St	101.0	4	R	133¾	7700	40x7S	40x5SD
F. W. D.—U 4	3	4575	Own	4	4¾x5½	36.1	Pb	Str	Vac	Eis	Own	C	5	Own	St	88.6	4	R	148	7000	36x6S	36x6S
F. W. D.—U 6	3½	4575	Wak	6	4 x4¾	38.6	Pb	Zen	Vac	Eis	Own	C	5	Own	St	88.6	4	R	148	7200	36x6S	36x6S
*F. W. D.—X 6	6	6500	Wak	6	4¼x4¾	43.3	Pb	Zen	Vac	Eis	Own	C	5	Own	St	88.6	4	4	170	9500	36x8	36x8
Garford Series S 11	1	1600	Bud H S 6	6	3⅜x4½	27.3	PC	Zen	Vac	Aut	Br-L	U	4	Col	Sp	25.5	4	D	142	3900	P30x5	P30x5
Garford Series S 11	1½	1900	Bud H S 6	6	3⅜x4½	27.3	PC	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	29.2	4	D	162	4300	P30x5	DP30x5
Garford Series 40	1½	2990	Bud D S 6	6	3⅝x5	31.5	PC	Zen	Vac	Aut	Br-L	U	4	Tim	W	34.8	4	D	168	4700	P34x5	DP34x5
Garford Series S 11	2	2030	Bud H S 6	6	3⅜x4½	27.3	PC	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	29.2	4	D	163	4500	P32x6	DP32x6
Garford Series 40	2	3240	Bud D S 6	6	3⅝x5	31.5	PC	Zen	Vac	Aut	Br-L	U	4	Tim	W	34.8	4	D	168	4900	P36x6	DP36x6
Garford Series 40	2½	3240	Bud D S 6	6	3⅝x5	31.5	PC	Zen	Vac	Aut	Br-L	U	4	Tim	W	34.8	4	D	168	5100	P36x6	DP36x6
Garford Series 60	2½	4580	Bud B U S	6	4 x5⅛	38.4	PC	Zen	Vac	Aut	Br-L	U	5	Tim	W	63.0	4	D	175	7000	P36x6	DP36x6
Garford Series 60	3	4680	Bud B U S	6	4 x5⅛	38.4	PC	Zen	Vac	Aut	Br-L	U	5	Tim	W	63.0	4	D	175	7100	P36x6	DP38x7
Garford Series 80	3½	5250	Bud B A 6	6	4⅛x5⅛	40.8	PC	Zen	Vac	Aut	Br-L	A	7	Tim	W	98.2	4	D	175	8200	S36x6	S36x12
Garford Series 80	4	5330	Bud B A 6	6	4⅛x5⅛	40.8	PC	Zen	Vac	Aut	Br-L	A	7	Tim	W	98.2	4	D	175	8400	S36x6	S36x14
Gen. Mot. T11-1001	*3800	625	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Own	U	3	Pontiac	Sp	14.7	4	D	109⅝	1980	5.00x19B	5.50x19B
Gen. Mot. T15-1501	*5400	695	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Own	U	3	Tim 51500	Sp	16.09	4	4	130	2625	5.50x20B	5.50x20B
Gen. Mot. T17-1701	*5500	735	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Own	U	3	Tim 51505	Sp	16.04	4	4	130	2650	6.50x20B	6.50x20B
Gen. Mot. T17-1707	*6500	750	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Own	U	3	Tim 51505	Sp	16.04	4	4	130	2670	5.50x20B	32x6
Gen. Mot. T19-2201	*6300	895	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Mun	U	4	Tim 5261	Sp	34.45	4	D	130	2850	5.50x20B	32x6
Gen. Mot. T19-2214	*8500	985	Pontiac	6	3⅛x3⅞	26.3	Pb	Mar	P	DR	Mun	U	4	Tim 5261	Sp	34.45	4	D	130	2925	30x5	30x5D
Gen. Mot. T25-2501	*6800	1235	Buick	6	3⅞x4⅝	28.3	Pb	Mar	P	DR	Mun	U	4	Tim 5261	Sp	29.62	4	D	130	3375	6.00x20B	7.50x20B

1930 COMMERCIAL CARS BUILT IN THE UNITED STATES

Make and Model	Capacity—Tons	Chassis Price	Engine	No. of Cyl.	Bore and Stroke	Tax H. P.	Oil System	Carburetor	Fuel Feed	Ignit. System	Gear Set	Location	No. Spds. For.	Rear Axle	Final Drive	Reduction in Low	Brakes, Foot	Brakes, Hand	Standard Wheel Base	Chassis Weight	Standard Tire Sizes Front	Rear
Gen. Mot. T25-2509	*8500	1280	Buick	6	3 7/16x4 5/8	28.3	Pb	Mar	P	DR	Mun	U	4	Tim 5261	Sp	29.62	4	D	130	3425	30x5	30x5D
Gen. Mot. T30-3206	*9000	1555	Buick	6	3 7/16x4 5/8	28.3	Pb	Mar	P	DR	Mun	U	4	Eat 1617	Sp	28.6	4	D	141	4450	6.00x20B	8.25x20B
Gen. Mot. T30-3203	*11000	1605	Buick	6	3 7/16x4 5/8	28.3	Pb	Mar	P	DR	Mun	U	4	Eat 1617	Sp	28.6	4	D	141	4525	32x6	32x6D
Gen. Mot. T42-4206	*10600	1735	Buick	6	3 7/16x4 5/8	28.3	Pb	Mar	P	DR	Mun	U	4	Eat 1717	Sp	33.38	4	D	141	4575	7.00x20B	9.00x20B
Gen. Mot. T42-4203	*14000	1960	Buick	6	3 7/16x4 5/8	28.3	Pb	Mar	P	DR	Mun	U	4	Eat 1717	Sp	33.38	4	D	141	4905	36x6	36x6D
Gen. Mot. T44-4401	*12000	1965	Buick	6	3 7/16x4 5/8	28.3	Pb	Mar	P	DR	Mun	U	4	Eat T44DR	2R	40.89	4	D	141	4825	32x6	32x6D
Gen. Mot. T44-4404	*15000	2095	Buick	6	3 7/16x4 5/8	28.3	Pb	Mar	P	DR	Mun	U	4	Eat T44DR	2R	40.89	4	D	141	5095	34x7	34x7D
Gen. Mot. T60-6202	*16500	3035	Buick	6	3 3/4x5	33.7	Pb	Mar	P	DR	Mun	U	4	Tim 65706	Wo	52.53	4	D	154 1/4	6625	34x7	34x7D
Gen. Mot. T60-6205	*18500	3125	Buick	6	3 3/4x5	33.7	Pb	Mar	P	DR	Mun	U	4	Tim 65706	Wo	52.53	4	D	154 1/4	6625	9.00x20B	9.00x20DB
Gen. Mot. T82-8202	*19000	3795	Buick	6	3 3/4x5	33.7	Pb	Mar	P	DR	Br-L	C	5	Tim 66704	Wo	84.91	4	D	155	7100	9.00x20B	9.00x20DB
Gen. Mot. T82-8207	*22000	4070	Buick	6	3 3/4x5	33.7	Pb	Mar	P	DR	Br-L	C	5	Tim 66704	Wo	84.91	4	D	155	7450	38x7	38x9D
Gen. Mot. T90-9001	*23000	5885	Buick	6	3 3/4x5	33.7	Pb	Mar	P	DR	Br-L	C	5	Tim SW-200	Wo	75.04	WR	D	185 1/4	9100	7.50x20B	7.50x20D
Gen. Mot. T90-9004	*28000	6055	Buick	6	3 3/4x5	33.7	Pb	Mar	P	DR	Br-L	C	5	Tim SW-200	Wo	75.04	WR	D	185 1/4	9475	8.25x20B	8.25x20DB
Gotfredson RB-26	1¼	1295	Con	6	3 3/8x4	27.3	Pb	Joh	P	DR	Br-L	U	4	Tim	Sp	—	4	D	Opt.	3400	30x5	30x5
Gotfredson RB-36	1½	1595	Con	6	3 3/8x4	27.3	Pb	Joh	P	DR	Br-L	U	4	Tim	Sp	—	4	D	Opt.	3900	32x6	32x6
Gotfredson RB-46	2	2100	Her	6	3 3/4x4 1/2	33.8	Pb	Joh	P	DR	Br-L	U	4	Tim	Sp	—	4	D	Opt.	5140	32x6	34x7
Gotfredson RW-46	2½	2585	Her	6	3 3/4x4 1/2	33.8	Pb	Joh	P	DR	Br-L	U	4	Tim	Wo	—	4	D	Opt.	5600	34x7	34x7
Gotfredson RW-56	3	3395	Her	6	4 x4 1/2	38.4	Pb	Joh	P	DR	Br-L	U	5	Tim	Wo	—	4	D	Opt.	6600	S36x5	S36x5D
Gotfredson RW-66A	3½	4475	Her	6	4 3/8x4 3/4	45.9	Pb	Joh	P	DR	Br-L	U	7	Tim	Wo	—	4	D	Opt.	7800	S36x5	S36x6D
Gotfredson RW-86A	5	5200	Her	6	4 5/8x4 3/4	51.3	Pb	Joh	P	DR	Br-L	C	7	Tim	Wo	—	4	D	Opt.	9000	S36x6	S36x7D
Gotfredson RW-106A	7½	5675	Her	6	4 5/8x4 3/4	51.3	Pb	Joh	P	DR	Br-L	C	7	Tim	Wo	—	4	D	Opt.	10000	S36x7	S36x8D
Gotfredson RW-206A	12	10500	Bud	6	4 3/4x6	54.15	Pb	Joh	P	DR	Br-L	C	7	Tim	Wo	—	6	D	Opt.	14000	S36x8	S36x8D
*Gramm B	1½	1495	Lyc 4 SL	6	3¼x4½	25.3	Pb	Zen	Vac	Aut	Cov	U	4	Tim	Sp	34.3	4	Tr	140	3800	30x5	30x5D
*Gramm C	2	1795	Lyc ASA	6	3 5/8x4 1/2	31.54	Pb	Zen	P	Aut	Cov	U	4	Tim	Sp	31	4	Tr	160	4820	32x6	32x6D
*Gramm D	2½	2195	Lyc TS	6	3 7/8x5	36	Pb	Zen	P	Aut	Cov	U	4	Tim	Sp	33	4	Tr	160	5100	32x6	32x6D
*Gramm E	3	2595	Lyc TS	6	3 7/8x5	36	Pb	Zen	P	Aut	Ful	U	4	Wis	2R	35	4	R	150	5200	34x7	34x7D
*Gramm EY	3	3595	Con 20 R	6	4 1/8x4 3/4	40.80	Pb	Zen	P	Aut	Ful	U	4	Tim	Sp	30	4	D	190	6750	32x6	32x6D
*Gramm GY	4	4345	Con 21 R	6	4 3/8x4 3/4	45.9	Pb	Zen	P	Aut	Ful	U	4	Wis	2R	28	4	D	210	7200	34x7	34x7D
*Gramm HY	5	6545	Con 16 H	6	4 3/4x5 3/4	54.15	Pb	Zen	P	Aut	Ful	U	4	Wis	2R	25.2	4	D	236	9600	36x8	36x8D
*Gramm O-35	3	3595	Lyc TS	6	3 7/8x5	36	Pb	Zen	Vac	Aut	Ful	C	8	Wis	2R	71.2	D	R	153	7200	36x5S	36x10S
*Gramm O-45	4	3995	Lyc TS	6	3 7/8x5	36	Pb	Zen	Vac	Aut	Ful	C	8	Wis	2R	75.8	D	R	153	7700	36x5S	36x12S
*Gramm O-60	5	4745	Lyc TS	6	3 7/8x5	36	Pb	Zen	Vac	Aut	Ful	C	8	Wis	2R	78.4	D	R	153	8800	36x6S	36x14S
*Gramm T-38	3	3595	Lyc TS	6	3 7/8x5	36	Pb	Zen	Vac	Aut	Ful	U	4	Wis	2R	45	D	R	153	7200	36x5S	36x10S
*Gramm T-48	4	3995	Lyc TS	6	3 7/8x5	36	Pb	Zen	Vac	Aut	Ful	U	4	Wis	2R	47	D	R	153	7700	36x5S	36x12S
Indiana 64	1	1195	Con 27 B	6	3 3/8x4 5/8	27.3	Pb	Str	Vac	Aut	Br-L 20	U	3	Col 36020	Sp	21.3	4	Tr	137	3435	30x5	30x5
Indiana 74	1¼	1290	Con 27 B	6	3 3/8x4 5/8	27.3	Pb	Str	Vac	Aut	Br-L 20	U	4	Col 36020	Sp	25.6	4	Tr	137	3450	32x6	32x6
Indiana 89	1½	1525	Con 27 B	6	3 3/8x4 5/8	27.3	Pb	Str	Vac	Aut	Br-L 20	U	4	Col 55002	Sp	25.6	4	Tr	149	3650	32x6	32x6
Indiana 11	1¼	1425	Her OX	4	4 x5	25.6	Pb	Str	Gra	Aut	Br-L 31	U	3	Cla B 365	Sp	24.48	R	R	129 1/2	3500	30x5	30x5
Indiana 111	1½	1630	Her OX	4	4 x5	25.6	Pb	Str	Gra	Aut	Br-L 31	U	3	Cla B 509	Sp	26.4	R	R	129 1/2	3600	30x5	32x6
Indiana 111 XW	2	1850	Her OXP	4	4 x5	25.6	Pb	Str	Vac	Eis	Br-L 35	U	4	Wis 4611	2R	30.14	R	Tr	120	3740	32x6	32x6D
Indiana 120	2	1990	Con 30 B	6	4 x4 1/8	38.4	Pb	Str	P	Aut	Br-L 35	U	4	Tim 54003 H	Sp	—	4	Tr	156	5200	32x6	32x6D
Indiana 140	2	2495	Con 30 B	6	4 x4 1/8	38.4	Pb	Str	P	Aut	Br-L 35	U	4	Wis 4916 L	2R	—	4V	Tr	156	5500	32x6	32x6D
Indiana 115 A	2½	2740	Her OXCP	4	4 1/4x5	28.9	Pb	Str	Vac	Eis	Br-L 35	U	4	Cla B 720	Sp	42.99	R	Tr	132	4970	32x6	34x7D
Indiana 615 A	2½	3070	Wis Y	6	3 3/8x5	27.34	Pb	Str	Vac	Eis	Br-L 35	U	4	Cla B 720	Sp	46.29	R	Tr	136	5160	32x6	34x7D
Indiana 126	3	3780	Her L	4	4 1/2x3 3/4	32.4	Pb	Str	Vac	Eis	Br-L 55-7	C	7	Tim 65704 S P	Wo	80.7	R	Js	162 1/2	7400	36x5S	36x10S
Indiana 626	3	4185	Wis H	6	4 x5	38.40	Pb	Str	Vac	Eis	Br-L 55-7	C	7	Tim 65704 S P	Wo	73.6	R	Js	168 1/2	7625	36x5S	36x10S
Indiana 627	3	3725	Wis H	6	4 x5	38.40	Pb	Str	Vac	Aut	Br-L 55-4	U	4	Cla B 720	Sp	42.8	R	Ds	168 3/4	6500	32x6	38x9
Indiana 127 AW	3	3775	Her K	4	4 1/4x5	28.90	Pb	Str	Vac	Eis	Br-L 51-5	U	5	Wis 1228	2R	41.72	RV	Ds	158 1/4	7000	34x7	34x7D
Indiana 627 AW	3	4075	Wis H	6	4 x5	38.40	Pb	Str	Vac	Eis	Br-L 51-5	U	5	Wis 1228	2R	41.72	RV	Ds	156 1/4	7200	34x7	34x7D
Indiana 638	4	4955	Wis H	6	4 x5	38.40	Pb	Str	Vac	Eis	Br-L 60-7	C	7	Tim 66700 S P	Wo	83.1	R	Js	174 1/4	8100	36x5S	36x12S
Indiana 290	7	7250	Con 36 B	6	4 3/4x5 3/4	54.15	Pb	Str	P	L-N	Br-L 70-7	C	7	Tim 68703 E	Wo	—	4W	Ds	182	10750	38x7	40x14S
Indiana 640	10	9700	Con 36 B	6	4 3/4x5 3/4	54.15	Pb	Str	P	L-N	Br-L 70-7	C	7	Tim 6 Wh	Wo	—	4RW	Ds	212	14000	38x7	36x10S
Int. Harvester Sp. Del.	¾	720	Wak X A	4	3 1/2x4 1/2	19.6	Pb	Zen	Vac	DR	Mec	U	3	Eat 502 R	Sp	15.1	4		124	2200	30x5.25	30x5.25
Int. Harv. 6 Spd. Spec.	1	820	Wak X A	4	3 1/2x4 1/2	19.6	Pb	Zen	Vac	DR	Mec	U	3	Eat 1124	Sp	*52.6	4		124	2430	30x5	30x5
Int. Harvester S-24	1¼	1160	Lyc C T	4	3¾x5	22.5	Pw	Zen	Vac	DR	Own	U	3	Eat 1002	Sp	21.3	4		130	3200	30x5	30x5
Int. Harvester S-26	1¼	1310	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	DR	Own	U	3	Eat 1002	Sp	21.3	4		130	3250	30x5	30x5
Int. Harvester SF-34	1½	1450	Lyc C T	4	3¾x5	22.5	Pw	Zen	Vac	DR	Own	U	3	Eat 1502	Sp	22.6	4		*140	3520	30x5	32x6
Int. Harvester SF-36	1½	1600	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	DR	Own	U	3	Eat 1502	Sp	22.6	4		*140	3570	30x5	32x6
Int. Harvester SD-44	2	1590	Lyc C T	4	3¾x5	22.5	Pw	Zen	Vac	AB	Own	U	4	Eat 2002	Sp	40.6	4		117	3700	30x5	32x6
Int. Harvester SD-46	2	1740	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	AB	Own	U	4	Eat 2002	Sp	40.6	4		117	3750	30x5	32x6
Int. Harvester SF-46	2	1950	Lyc 4 S L	6	3¼x4½	25.3	Pb	Zen	Vac	DR	Own	U	4	Eat 2002	Sp	40.6	4		*140	4000	32x6P	32x6DP
Int. Harvester A-4	2	1985	Own-FBB	6	3 3/8x4 1/2	31.5	Pb	Zen	Vac	DR	Own	U	5	Eat 1712	Sp	47.8	4		*145	5070	32x6	32x6DP
Int. Harvester A-5	3	2550	Own-FBB	6	3 5/8x4 1/2	31.5	Pb	Zen	Vac	DR	Own	U	5	Eat 2112	Sp	52.6	4		*156	5606	34x7	34x7DP
Int. Harvester HS-54	2½	3850	Hall-S 151	4	4¼x5½	28.9	Pb	Zen	Vac	RB	Own	U	5	Eat 54	2R	60.5	4		*148	8000	36x5S	36x8S
Int. Harvester HS-54-C	2½	3850	Hall-S 151	4	4¼x5½	28.9	Pb	Zen	Vac	RB	Own	U	5	Own A M 428	Ch	63.8	4		*148	8665	36x5S	36x10S
Int. Harvester W-1	2½	3850	Hall-S 151	4	4¼x5½	28.9	Pb	Zen	Vac	RB	Own	U	5	Eat 58	2R	60.5	4		*148	8300	36x5S	36x8S
Int. Harvester HS-74	3½	4850	Hall-S 152	4	4¾x5½	36.1	Pb	Zen	Vac	RB	Own	U	5	Eat 74	2R	70.5	4		*160	10700	36x5S	40x12S
Int. Harvester HS-74-C	3½	4850	Hall-S 152	4	4¾x5½	36.1	Pb	Zen	Vac	RB	Own	U	5	Own A M 427	Ch	79.1	4		*160	11000	36x6S	40x12S
Int. Harvester W-3	3½	4850	Hall-S 152	4	4¾x5½	36.1	Pb	Zen	Vac	RB	Own	U	5	Eat 78	2R	70.5	4		*160	10125	36x6S	40x12S
Int. Harv's'r HS-104-C	5	5500	Hall-S 152	4	4¾x5½	36.1	Pb	Zen	Vac	RB	Own	U	5	Own A M 427	Ch	90.5	4		*160	11095	36x6S	40x14S
La France-Repub. A-1	*6000	990	Lyc	6	2 7/8x4 3/4	19.8	Pb	Zen	Vac	Aut	Ful	U	4	Tim	Sp	36.1	4	Tr	132	3000	5.50x20	32x6
La France-Repub. C-1	*7000	1295	Lyc	6	3 1/4x4 1/2	25.4	Pb	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	29.1	4	Tr	144	3300	6.00x20	32x6
La France-Repub. D-1	*9000	1595	Lyc	6	3 1/4x4 1/2	25.4	Pb	Zen	Vac	Aut	Ful	U	4	Tim	Sp	37.9	4	Tr	144	3725	30x5	30x5D
La France-Repub. F-1	*12000	2195	Lyc	6	3 1/4x4 1/2	25.4	Pb	Zen	Vac	Aut	Ful	U	4	Eat	Sp	43.0	4	D	155	4850	32x6	32x6D
La France-Repub. F-2	*13000	2395	Lyc	6	3 5/8x5	31.5	Pb	Zen	Vac	Aut	Ful	U	4	Tim	Sp	40.1	4	D	174	5870	32x6	32x6D
La France-Repub. H-1	*15000	2985	Lyc	6	3 7/8x5	36.0	Pb	Zen	Vac	Aut	Ful	U	4	Eat	Sp	36.0	4	D	163	5850	34x7	34x7D
La France-Repub. L-1	*18000	3595	Lyc	6	3 7/8x5	36.0	Pb	Zen	Vac	Aut	Ful	U	4	Eat	2R	48.0	4	D	180	6900	36x8	36x8D
La France-Repub. M-1	*20000	3800	Wak	6	4 x4 3/4	38.4	Pb	Zen	Vac	Aut	Br-L	U	5	Eat	2R	53.0	D	R	171	6900	36x8	36x8D
Mack AB	2½-3	3950	Own	4	4¼x5	28.9	Pb	Str	Gra	RB	Own	U	4	Own	2R	Opt	R	D	2-Opt	——	36x4S	36x8S
††Mack BJ	3½-5	6150	Own	6	4 1/2x5 1/2	48.6	Pb	Str	Vac	NE	Own	C	4	Own	2R	Opt	4	D	3-Opt	——	36x8	36x8D
††Mack AK	3½-5	5150	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	J	4	Own	Ch	Opt	4	Js	3-Opt	——	36x5S	36x5DS
††Mack AK	3½-5	5250	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	C	4	Own	2R	Opt	4	D	3-Opt	——	36x5S	36x5DS
††Mack AC	3½-5	4950	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	J	4	Own	Ch	Opt	Js	R	3-Opt	——	36x5S	40x10S
††Mack AC	5½-7	5500	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	J	4	Own	Ch	Opt	Js	R	3-Opt	——	36x6S	40x12S
††Mack AC	7½	6000	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	J	4	Own	Ch	Opt	Js	R	3-Opt	——	36x7S	40x14S
††Mack AP	7½	9500	Own	6	5 x6	60.0	Pb	Str	Gra	NE	Own	J	4	Own	Ch	Opt	R	Js	191	——	36x7S	40x8DS
Mack BL	1	2500	Own	6	3 1/4x5	25.39	Pw	Str	Vac	NE	Own	U	4	Own	Sp	Opt	4	D	148	——	B6.00x20	DB6.00x20
††Mack BG	1½	3000	Own	6	3 5/8x5	31.57	Pw	Str	Vac	NE	Own	U	4	Own	Sp	Opt	4	D	138-156	——	P32x6	DP32x6
††Mack AB	2½-3	3500	Own	4	4¼x5	28.9	Pb	Str	Gra	RB	Own	U	4	Own	Ch	Opt	R	D	2-Opt	——	36x4S	36x8S
Mack AB	2½-3	4750	Own	6	3 5/8x5	31.57	Pw	Str	Vac	NE	Own	U	4	Own	2R	Opt	R	D	2-Opt	——	P34x7	DP34x7
††Mack AB	2½-3	4300	Own	6	3 5/8x5	31.57	Pw	Str	Vac	NE	Own	U	4	Own	Ch	Opt	R	D	2-Opt	——	P34x7	DP34x7
††Mack BC	3½-4	5250	Own	6	4 x5 1/2	38.4	Pb	Str	Vac	NE	Own	U	4	Own	2R	Opt	4	D	2-Opt	——	P36x8	DP36x8
††Mack BC	3½-4	4250	Own	4	4¼x5	28.9	Pb	Str	Gra	RB	Own	U	4	Own	2R	Opt	4	D	2-Opt	——	36x5S	36x5DS
Mack AC 6-wheel	10	7500	Own	4	5 x6	40.0	Pb	Str	Gra	RB	Own	J	4	Own	Ch	Opt	4R	Js	3-Opt	——	36x7S	40x12S
Mack AP 6-wheel	10	12000	Own	6	5 x6	60.0	Pb	Str	Gra	NE	Own	J	4	Own	Ch	Opt	4R	Js	3-Opt	——	36x7	40x12S
Paige	¾	860	Own	6	3¼x4½	25.35	Pb	Stw	P	DR	W-G	U	3	Sal	Sp	17.36	4	Tr	115	2465	B5.50x19	B5.50x19
*Pierce-Arrow F A-1	1½-2	2450	Own	6	3 1/2x5	29.4	Pw	Str	Pre	DR	Own	U	3	Tim	St	21.4	4	Tr	140	4100	32x6	32x6D
*Pierce-Arrow X A-1	2	3500	Own	4	4 x5 1/2	25.6	Pw	Str	Pre	DR	Own	C	4	Own	Wo	44.2	4Dv	R	150	6750	36x4	36x5DS
*Pierce-Arrow X B-1	3	3750	Own	4	4 x5 1/2	25.6	Pw	Str	Pre	DR	Own	C	4	Own	Wo	48.1	4Dv	R	150	6830	36x5	36x5DS
*Pierce-Arrow H B-1	5	4500	Own	4	4 x5 1/2	25.6	Pw	Str	Pre	DR	Own	C	7	Own	Wo	95.0	4Dv	R	156	8400	36x5	36x6DS
*†Pierce-Arrow W C-1	4	5100	Own	4	4 1/2x6 3/4	32.4	Pw	Str	Pre	DR	Own	C	4	Own	Wo	41.5	4Dv	R	162	8780	36x5	36x6DS
*†Pierce-Arrow R D-1	5	5400	Own	4	4 1/2x6 3/4	32.4	Pw	Str	Pre	DR	Own	C	4	Own	Wo	40.5	4Dv	R	162	9440	36x6	36x7DS
*†Pierce-Arrow R F-1	7½	5600	Own	4	4 1/2x6 3/4	32.4	Pw	Str	Pre	DR	Own	C	4	Own	Wo	51.9	4Dv	R	168	10320	36x6	40x8DS
†Pierce-Arrow R F-T	7½	5600	Own	4	4 1/2x6 3/4	32.4	Pw	Str	Pre	DR	Own	C	4	Own	Wo	51.9	4Dv	R	132	10200	36x6	36x8DS
Relay Series S 11	1	1700	Bud H S 6	6	3 3/8x4 1/2	27.3	PC	Zen	Vac	Aut	Br-L	U	4	Own	Relay	25.7	4	D	142	4050	P30x5	P30x5
Relay Series S 11	1½	1900	Bud H S 6	6	3 3/8x4 1/2	27.3	PC	Zen	Vac	Aut	Br-L	U	4	Own	Relay	25.7	4	D	162	4500	P30x5	DP30x5
Relay Series 40	1½	2990	Bud D S 6	6	3 5/8x5	31.2	PC	Zen	Vac	Aut	Br-L	U	4	Own	Relay	34.5	4	D	168	5300	P34x5	DP34x5
Relay Series S 11	2	2030	Bud H S 6	6	3 3/8x4 1/2	27.3	PC	Zen	Vac	Aut	Br-L	U	4	Own	Relay	30.0	4	D	162	4700	D32x6	DP32x6
Relay Series 40	2	3240	Bud D S 6	6	3 5/8x5	31.5	PC	Zen	Vac	Aut	Br-L	U	4	Own	Relay	34.5	4	D	168	5500	P36x6	DP36x6
Relay Series 50	2	3860	Bud D W 6	6	3 3/4x5	33.7	PC	Zen	Vac	Aut	Br-L	U	5	Own	Relay	58.5	4	D	161	6800	P36x6	DP36x6
Relay Series 40	2½	3240	Bud D S 6	6	3 5/8x5	31.5	PC	Zen	Vac	Aut	Br-L	U	4	Own	Relay	34.5	4	D	168	5700	P36x6	DP36x6

Major Specifications and Mechanical Details of 1930 Commercial Cars Built in the United States

Make and Model	Capacity—Tons	Chassis Price	Engine	No. of Cyl.	Bore and Stroke	Tax H. P.	Oil System	Carburetor	Fuel Feed	Ignit. System	Gear Set	Location	No. Spds. For.	Rear Axle	Final Drive	Reduction in Low	Brakes, Foot	Brakes, Hand	Standard Wheel Base	Chassis Weight	Standard Tire Sizes Front	Rear
Relay Series 50	2½	3950	Bud D W 6	6	3¾x5	33.7	PC	Lon	Vac	Aut	Br-L	U	5	Own	Relay	58.5	4	D	161	7000	P36x6	DP38x7
Relay Series 60	2½	4530	Bud B U S	6	4 x5⅛	38.4	PC	Lon	Vac	Aut	Br-L	U	5	Own	Relay	58.5	4	D	175	7350	P36x6	DP36x6
Relay Series 50	3	4130	Bud D W 6	6	3¾x5	33.7	PC	Lon	Vac	Aut	Br-L	U	5	Own	Relay	58.5	4	D	161	7200	P36x6	DP40x8
Relay Series 60	3	4595	Bud B U S	6	4 x5⅛	38.4	PC	Lon	Vac	Aut	Br-L	U	5	Own	Relay	58.5	4	D	175	7500	P36x6	DP38x7
Relay Series 80	3	5250	Bud B A 6	6	4⅛x5⅛	40.8	PC	Lon	Vac	Aut	Br-L	U	8	Own	Relay	84.18	4	D	175	8400	P36x6	S40x10
Relay Series 60	3½	4745	Bud B U S	6	4 x5⅛	38.4	PC	Lon	Vac	Aut	Br-L	U	5	Own	Relay	58.5	4	D	175	7800	P38x7	DP40x8
Relay Series 80	3½	5330	Bud B A	6	4⅛x5⅛	40.8	PC	Lon	Vac	Aut	Cov	A	8	Own	Relay	84.18	4	D	175	8600	P36x6	S40x12
Relay Series 80	4	5380	Bud B A	6	4⅛x5⅛	40.8	PC	Lon	Vac	Aut	Cov	A	8	Own	Relay	84.18	4	D	175	8800	P38x7	S40x14
Reo 15 Junior	½	785	Con 16 E	6	3⅜x4	27.3	Pb	Sch	Vac	DR	W-G	U	3	Sal	Sp	14.63	4	Tr	115	2290	5.50x18	5.50x18
Reo D A	1	995	Con 16 E	6	3⅜x4	27.3	Pb	Sch	Vac	DR	W-G	U	3	Own	Sp	18.4	4	Tr	123	2755	30x5	30x5
Reo D F	1	1095	Own C B	6	3⅜x4	27.3	Pb	Sch	Vac	DR	W-G	U	3	Own	Sp	18.4	4	Tr	138	2850	30x5	30x5
Reo F A	1½	1295	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	22.96	4	Tr	137	3525	32x6	32x6
Reo F E	1½	1395	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	22.96	4	Tr	152	3700	32x6	32x6
Reo F H	2	1595	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	37.6	4	Tr	142	4165	32x6	32x6D
Reo F C	2	1645	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	37.62	4	Tr	152	4025	32x6	32x6D
Reo F D	2	1745	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	37.62	4	Tr	168	4075	32x6	32x6D
Reo G A	3	2035	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	41.05	4	Tr	163	4625	32x6	32x6D
Reo G C	3	2140	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	41.05	4	Tr	179	4850	32x6	32x6D
Reo G D	3	1985	Own	6	3⅜x5	27.3	Pb	Sch	Vac	DR	Own	U	4	Own	Sp	46.2	4	Tr	144	4570	32x6	32x6D
Rugby ½ T	½	655	Con	6	3¼x4	25.4	Pb	Str	AC	Aut	Own	U	3	Own	Sp	15.6	4	4	—	2160	29x5	29x5
Rugby 6-15	1	865	Con	6	3¼x4	25.4	Pb	Str	AC	Aut	Br-L	U	4	Sal	Sp	34.49	4	Tr	135	2900	20x5.50	32x6
Selden 7 C	1	1098	Con	6	2⅜x4¾	19.84	Pb	Zen	Vac	Aut	BB	U	3	Tim	Sp	—	4	D	124	3600	30x5	30x5
Selden 17 C	1½	1430	Con	6	3⅜x4	27.3	Pb	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	—	4	D	142	4000	30x5	30x5
Selden 37 C	2½	1950	Con	6	3⅝x4⅝	27.34	Pb	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	—	4	D	151	4795	30x5	30x5D
Selden 39 C	3	2848	Con	6	4 x4⅛	38.4	Pb	Str	Vac	Aut	Br-L	U	4	Tim	Sp	—	4	D	164	6065	32x6	32x6D
Selden 47 H B	3½	3775	Con	6	4 x4½	38.4	Pb	Str	Vac	Aut	Br-L	U	4	Tim	Sp	—	4	D	171	7185	34x7	34x7D
Selden 47 H D	4	4150	Con	6	4 x4½	38.4	Pb	Str	Vac	Aut	Br-L	U	5	Wis	2R	—	4	D	171	7475	34x7	34x7D
Selden 67 C	5	4950	Con	6	4⅜x4¾	45.94	Pb	Str	Vac	Aut	Br-L	U	7	Wis	2R	—	4	D	171	9000	36x8	36x8D
Selden 77	7	7150	Con	6	4¾x5¾	54.15	Pb	Str	Vac	Aut	Br-L	U	7	Wis	2R	—	4	D	178	12000	36x7	40x7D
Service Series S 11	1	1600	Bud H S 6	6	3⅜x4½	27.3	PC	Zen	Vac	Aut	Br-L	U	4	Col	Sp	25.5	4	D	142	3900	P30x5	P30x5
Service Series S 11	1½	1900	Bud H S 6	6	3⅜x4½	27.3	PC	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	29.2	4	D	162	4300	P30x5	DP30x5
Service Series 40	1½	2990	Bud D S 6	6	3⅝x5	31.5	PC	Zen	Vac	Aut	Br-L	U	4	Tim	W	34.8	4	D	168	4700	P34x5	DP34x5
Service Series S 11	2	2030	Bud H S 6	6	3⅜x4½	27.3	PC	Zen	Vac	Aut	Br-L	U	4	Tim	Sp	29.2	4	D	162	4500	P32x6	DP32x6
Service Series 40	2	3240	Bud D S 6	6	3⅝x5	31.5	PC	Zen	Vac	Aut	Br-L	U	4	Tim	W	34.8	4	D	168	4960	P36x6	DP36x6
Service Series 40	2½	3240	Bud D S 6	6	3⅝x5	31.5	PC	Zen	Vac	Aut	Br-L	U	4	Tim	W	34.8	4	D	168	5100	P36x6	DP36x6
Service Series 60	2½	4580	Bud B U S	6	4 x5⅛	38.4	PC	Zen	Vac	Aut	Br-L	U	5	Tim	W	63.0	4	D	175	7000	P36x6	DP36x6
Service Series 60	3	4680	Bud B U S	6	4 x5⅛	38.4	PC	Zen	Vac	Aut	Br-L	U	5	Tim	W	63.0	4	D	175	7100	P36x6	DP38x7
Service Series 80	3½	5250	Bud B A 6	6	4⅛x5⅛	40.8	PC	Zen	Vac	Aut	Br-L	A	7	Tim	W	98.2	4	D	175	8200	S36x6	S36x12
Service Series 80	4	5330	Bud B A 6	6	4⅛x5⅛	40.8	PC	Zen	Vac	Aut	Br-L	A	7	Tim	W	98.2	4	D	175	8400	S36x6	S36x14
Service Series 100	5	5830	Bud B A 6	6	4⅛x5⅛	40.8	PC	Zen	Vac	Aut	Br-L	A	7	Tim	W	98.2	4	D	175	9600	S36x6	S40x14
Stewart 30	1	695	Lyc AFE	4	3¾x4½	22.5	Pb	Str	Vac	DR	W-G	U	4	Sal	Sp	—	4	D	130	2905	6.50x20	6.50x20
Stewart 30 X	1	795	Lyc WRG	6	2⅞x4½	19.8	Pb	Str	Vac	DR	W-G	U	4	Sal	Sp	—	4	D	130	2965	6.50x20	6.50x20
*Stewart 16 A	1¼	1195	Lyc CT	4	3¾x5	22.5	Pb	Str	Vac	DR	W-G	U	4	Cla	Sp	24.0	4	D	130	3526	32x6	32x6
*Stewart 16 XA	1¼	1195	Lyc 4 SL	6	3¼x4½	25.3	Pb	Str	Vac	DR	W-G	U	4	Cla	Sp	24.0	4	D	130	3526	32x6	32x6
Stewart 28 X	1½	1495	Lyc 4 SL	6	3¼x4½	25.3	Pb	Str	Vac	DR	Ful	U	4	Cla	Sp	27.3	4	D	136	3840	30x5	30x5D
Stewart 29 X	2	1695	Lyc 4 SL	6	3¼x4½	25.3	Pb	Str	Vac	DR	Ful	U	4	Cla	Sp	27.3	4	D	145	4188	32x6	32x6D
Stewart 26 X W	2	2290	Lyc TF	6	3⅝x5	31.5	Pw	Str	Vac	DR	Ful	U	4	Tim	Wo	29.0	4	D	165	5095	32x6	32x6D
*Stewart 18 X	2½	2690	Lyc TF	6	3⅝x5	31.5	Pw	Str	Vac	DR	Ful	U	4	Tim	Wo	29.0	4	D	165	5788	32x6	32x6D
Stewart 32 X	2½	1990	Lyc ASA	6	3⅝x4¾	31.54	Pw	Str	Vac	DR	Ful	U	4	Cla	Sp	7.25:1	4	D	165	5100	32x6	32x6D
Stewart 33 X	3	3290	Lyc TS	6	3⅞x5	36.2	Pw	Str	Vac	DR	Ful	U	4	Tim	Wo	7.25:1	4	D	165	6450	34x7	34x7D
Stewart 19 X	3½	3690	Lyc TS	6	3⅞x5	36.2	Pw	Str	Vac	DR	Ful	C	12	Tim	Wo	105 1	4	D	165	6990	36x5	36x10
Stewart 31 X	5	4990	Wak 6 RSL	6	4⅜x5⅛	45.9	Pw	Str	Vac	DR	Ful	C	8	Tim	Wo	10.5:1	4	D	165	8400	36x6S	36x6SD
Stewart 27 X	6-7	5700	Wak 6 RSL	6	4⅜x5⅛	45 99	Pw	Str	Vac	DR	Ful	U	8	Tim	Wo	93.81	4	D	165	9927	36x7	40x7D
Studebaker GN-P	¾	845	Own	8	3½x4⅜	39.2	Pb	Str	P	DR	Own	U	3	Own	Sp	15.15	4	‡4	146	3265	30x5	32x6
Studebaker GN-S	1	1045	Own	6	3⅜x4⅛	27.3	Pb	Str	P	DR	Own	U	3	Own	Sp	13.8	4	D	158	5030	7.00x20	7.00x20D
Studebaker GK-N	1	1095	Own	6	3⅜x4⅛	27.3	Pb	Str	P	DR	Own	U	3	Own	Sp	13.8	4	D	184	5200	7.50x20	7.50x20D
Studebaker GN-N	*4000	1245	Own	6	3⅜x4⅛	27.3	Pb	Str	P	DR	Cla	U	4	Cla	Sp	33 5	4	D	184	5680	7.50x20	7.50x20D
Studebaker 77	*12500	2895	Own	6	3⅜x4⅛	27.3	Pb	Str	P	DR	Ful	U	4	Eat	Sp	24.6	4V	D	115	2465	6.00x19	6.00x19
Studebaker 88	*12500	3295	Own	8	3½x4¾	39.2	Pb	Str	P	DR	Ful	U	4	Eat	Sp	24.6	4V	D	130	2990	6.00x20	30x5
Studebaker 99	*14000	3795	Own	8	3½x4¾	39.2	Pb	Str	P	DR	Ful	U	4	Eat	Sp	24.6	4V	D	146	2955	30x5	30x5
Whippet 96 A	½	360	Own 96 A	4	3⅛x4¾	15.6	Pb	Til	Vac	Aut	Own	U	3	Own	Sp	14.74	4	R	103¼	1691	28x4.75	28x4.75
Willys Six 98 B	½	525	Own 98 B	6	3¼x3⅞	25.35	Pb	Til	Vac	Aut	Own	U	3	Own	Sp	13.43	4	B	110	1903	29x5.00	29x5.00
Willys Six C-101	1½	695	Own 98 B	6	3¼x3⅞	25.35	Pb	Til	Vac	Aut	Ful Wo	U	4	Cla	Sp	33.51	4	R	131	2675	30x5	30x5
†White 15 B	1	1545	Own GKA	4	3¾x5⅛	22.5	CS	Zen	Vac	L-N	Own	C	4	Own	Sp	18.6	R	R	133½	3242	30x5	30x5
†White 57	1¼	2725	Own GRC	4	4 x5¾	25.6	Pw	Zen	Vac	L-N	Own	U	4	Own	Sp	19.3	R	R	146	3755	32x6	32x6
†White 20 A	1½	2125	Own GKA	4	3¾x5⅛	22.5	CS	Zen	Vac	L-N	Own	C	4	Own	2R	32.1	R	R	145½	4412	34x5	34x5DP
†White 56	2	3125	Own GRC	4	4 x5¾	25.6	Pw	Zen	Vac	Mag	Own	U	4	Own	Sp	26.2	R	D	165	5096	36x4S	36x7S
†White 51 A	2½	3750	Own GRB	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	4	Own	Sp	35.5	R	D	170	6256	36x5S	36x8S
†White 55	3½	4650	Own GRB	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	4	Own	IG	66.1	4	R	174	8512	36x5S	40x5SD
†White 52 T	3½	4700	Own GRB	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	4	Own	IG	76.5	4	R	129½	8236	36x5S	40x5SD
†White 52	5	5100	Own GRB	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	5	Own	IG	92.3	4	R	174	9184	36x6S	40x12S
†*White 58	3	4400	Own GRB	4	4¼x5¾	28.9	Pw	Zen	Vac	Mag	Own	U	4	Own	IG	49.5	4	R	180	7535	36x5S	36x5SD
†White 60	1	1850	Own 2 A	6	3½x4½	29.4	Pw	Zen	Vac	DR	Own	U	3	Own	Sp	17.9	4	D	138	3562	30x5	30x5
†White 61	1½	2450	Own 2 A	6	3½x4½	29.4	Pw	Zen	Vac	DR	Own	U	4	Own	Sp	23.4	4	D	148	4612	30x5	30x5D
†White 59 A	7½	6000	Own 3 A	6	4 x5¼	38.4	Pw	Zen	P	L-N	Own	U	4	Own	Sp	66.5	4	D	155⅛	—	40x8	40x14S
Willys-Knight T-103	1½	825	Own KGT	6	2⅛x4⅜	20.7	Pb	Til	Vac	Aut	Ful Wo	U	4	Cla	Sp	39.27	4	B	131	2808	30x5	30x5
Willys-Knight 20	2	1945	Own KGT	6	3⅜x4¾	27.3	Pw	Til	Vac	Aut	Ful KU	U	4	Eat	Sp	40.74	4	R	150	3800	32x6	34x7
Willys-Knight 21	2	1995	Own KGT	6	3⅜x4¾	27.3	Pw	Til	Vac	Aut	Ful KU	U	4	Eat	Sp	40.74	4	R	164	3900	32x6	34x7
Willys-Knight 25	2½	2545	Own KGT	6	3⅜x4¾	27.3	Pw	Til	Vac	Aut	Ful GU	U	4	Wis	2R	30.45	4	R	150	4920	32x6	32x6D
Willys-Knight 26	2½	2595	Own KGT	6	3⅜x4¾	27.3	Pw	Til	Vac	Aut	Ful GU	U	4	Wis	2R	30.45	4	R	164	5020	32x6	32x6D

GENERAL NOTATIONS

*†**REFERENCE MARKS** apply to individual lines only and explanations are given under the subdivision for each company in the "**SPECIAL NOTATIONS.**"

CAPACITIES given in this table are in tons or fractions of tons. *Shows maximum allowable gross weight in pounds.

WHEEL BASES given are standard, but optional wheel bases are available in many cases.

ENGINE—Bud, Buda; Con., Continental; Her, Hercules; Kgt, Knight; Lyc, Lycoming; Wak, Waukesha; Wis, Wisconsin.

LUBRICATION—Pb, pressure lubrication to main and connecting rod bearings; Pw, full pressure lubrication to all bearings, including wrist-pins; CS, circulating splash; Sp, Splash.

CARBURETOR—Car, Carter; Joh, Johnson; Mar, Marvel; Sch, Wheeler-Schebler; Str, Stromberg; Stw, Detroit lubricator; Til, Tillotson; Zen, Zenith-Detroit.

FUEL FEED—Gra, Gravity; Pre, Pressure; Vac, Vacuum; tank; P, Fuel pump.

IGNITION—AB, American-Bosch; Aut, Electric Auto-Lite; Eis, Eisemann; L-N, Loece-Neville; N-E, North East; RB, Robert Bosch; D R, Delco-Remy.

TRANSMISSION—Br. L, Brown-Lipe; Cov, Covert; Ful, Fuller; Mec, Mechanics Machine; Mun, Muncie; W-G, Warner Gear.

LOCATION—C Center, Amid; U, in unit with engine.

REAR AXLE—Cla, Clark Equipment; Col, Columbia; Eat, Eaton; Sal, Salisbury; Tim, Timken, Wis, Wisconsin.

FINAL DRIVE—St, Straight bevel; Sp, Spiral bevel; Wo, Worm; 2 R, Double Reduction; Ch, Chain; Relay, Relay drive.

BRAKES—Js, Jack shaft; R, Rear wheels; D, Drive shaft; 4, four-wheel; Tr, Transmission; W, Westinghouse air brake. B, Both front and rear wheels.

TIRES—B, Balloon; D, Dual; S, Solid.

SPECIAL NOTATIONS

AMERICAN-LA FRANCE

*Chief model also available as 2½-ton model, 34x7 tire, dual rear, weight 6,400. Price $3,990.

Chieftain model also available as Dump Truck 160-inch wheel base.

Balloon tires optional on Chief, Chieftain and Big Chief models.

AUTOCAR

†Engines in these models are located under the driver's seat.

DAY-ELDER

Models GF and HF also available in 186-inch wheel base.

Model JF also available in the following wheel bases: 165, 180 and 204 inches.

Model KF also available in 202-inch wheel base and tractor 149.

DURANT LINE

*Price includes panel body.

GENERAL MOTORS TRUCK LINE

*Capacity indicated for each chassis is the recommended gross weight without exceeding rated capacity of tires. The tire size does not affect the straight rating for which chassis is guaranteed and each model is designed to operate satisfactorily under average conditions with loads giving a total gross weight chassis, body, equipment and payload, equal to straight rating given below. The additional standard wheel base lengths, the number of additional tire types (tire combinations—each type carrying a recommended gross weight) and the ton range on a nominal payload basis for each model is given below.

Model	Straight Rating	Additional Wh. Bases, ins.	Addit'l Tire Types	Payl'd Range
T-11	3800	None	None	½
T-15	5400	141	2	¾
T-17	6500	141	6	¾-1¼
T-19	8500	141, 152	16	1-2
T-25	8500	141, 152	11	1-1¾
T-30	11000	152, 164	12	1½-2½
T-42	14000	152, 164, 181	10	2-3½
T-44	15000	152, 164, 181	10	2-4
T-60	18500	146¾, 184½, 200¼	16	2½-4½
T-82	22000	167½, 185¼, 201	10	3-6
T-95	28000	201, 220	5	5-7½

Optional rear axle ratios are available for all models.

F. W. D.

*Indicates six-wheel model. Special power take-off transmission, which provides 3 power take offs which may be operated in any transmission speed, optional on all models.

GRAMM

*Models B, C, D and E are furnished in three wheel base lengths—others on request.

*Models GY and GYB also available in 190-inch wheel base.

*Models HY and HYB also available in 210-inch wheel base.

Tire sizes and electrical equipment optional, depending upon type of service—coach or van.

*Model O Series, Large engine, pneumatic tires, special wheel bases optional at extra cost.

*Model T Series, Large engine, pneumatic tires, special wheel bases and 8 speed transmission optional at extra cost.

MACK LINE

Other wheel bases furnished on all truck models.

On 6-wheel jobs 4 rear wheels driven by chains, foot brake on 4 rear wheels.

HYP.—Hypoid drive, single reduction.

††Made also in tractor models.

PIERCE-ARROW LINE

*Model FA1 also available as Model FA2, at $2,550 on 160-inch wheel base, weight 4,150 lbs., and also as Model FA3, at $2,250 on 180-inch wheel base, weight 4,200 lbs.

*Model XA1 also available as Model XA2, at $3,550 on 162-inch wheel base, weight 6,800 lbs.

*Model XB1 is also available as Model XB2, at $3,800 on 180-inch wheel base, weight 6,900 lbs.

*Model HB1 is also available as Model HB2, at $4,550 on 180-inch wheel base, weight 8,500 lbs., and also as Model HB3, at $4,600 on 198-inch wheel base, weight 8,700 lbs.

*Model WC1 is also available as Model WC2, at $5,150 on 180-inch wheel base, weight 8,950 lbs., and also as Model WC3, at $5,250 on 198-inch wheel base, weight 9,050 lbs.

*Model RD1 is also available as Model RD2, at $5,650 on 180-inch wheel base, weight 9,650 lbs., and also as Model RD3, at $5,500 on 198-inch wheel base, weight 9,750 lbs.

*Model RF1 is also available as Model RF2, at $5,656 on 204-inch wheel base, weight 10,500 lbs.

†Seven-speed transmission also available.

REO LINE

RD2, at $6,450 on 180-inch wheel base.

*Tonner in wheel base, 123, 138; 1½-ton in wheel base, 137, 156, 152; 2-ton in wheel base, 152, 168; 3-ton in wheel base, 168, 179, 184.

RUGBY

F—Chassis weight includes body.

STEWART LINE

Model 30 and 30X can also be supplied in 120 and 140-inch wheel base.

*Models 16 and 16X can be supplied in 145-inch and 160-inch wheel base.

Model 28X can be supplied in 145, 160 and 176-inch wheel base.

Model 29X can be supplied in 160 and 176-inch wheel base.

*Model 26XW can be supplied in 148, 176 and 190-inch wheel base.

*Models 18X, 32X and 33X can be supplied in 148, 190 and 220-inch wheel base.

*Models 19X, 31X and 27X can be supplied in 148, 172, 190, 220 and 235-inch wheel base.

STUDEBAKER LINE

*Capacity Model GN-N is 4,000 lbs. for body, cab, driver and payload.

Maximum gross load, chassis, body and payload for Models 77 and 88 is 12,500 lbs. and for Model 99 is 14,000 lbs.

‡Hand brake same as foot brake, standard. Hand brake on drive shaft, special equipment.

Range of Automotive Stocks: Financial News

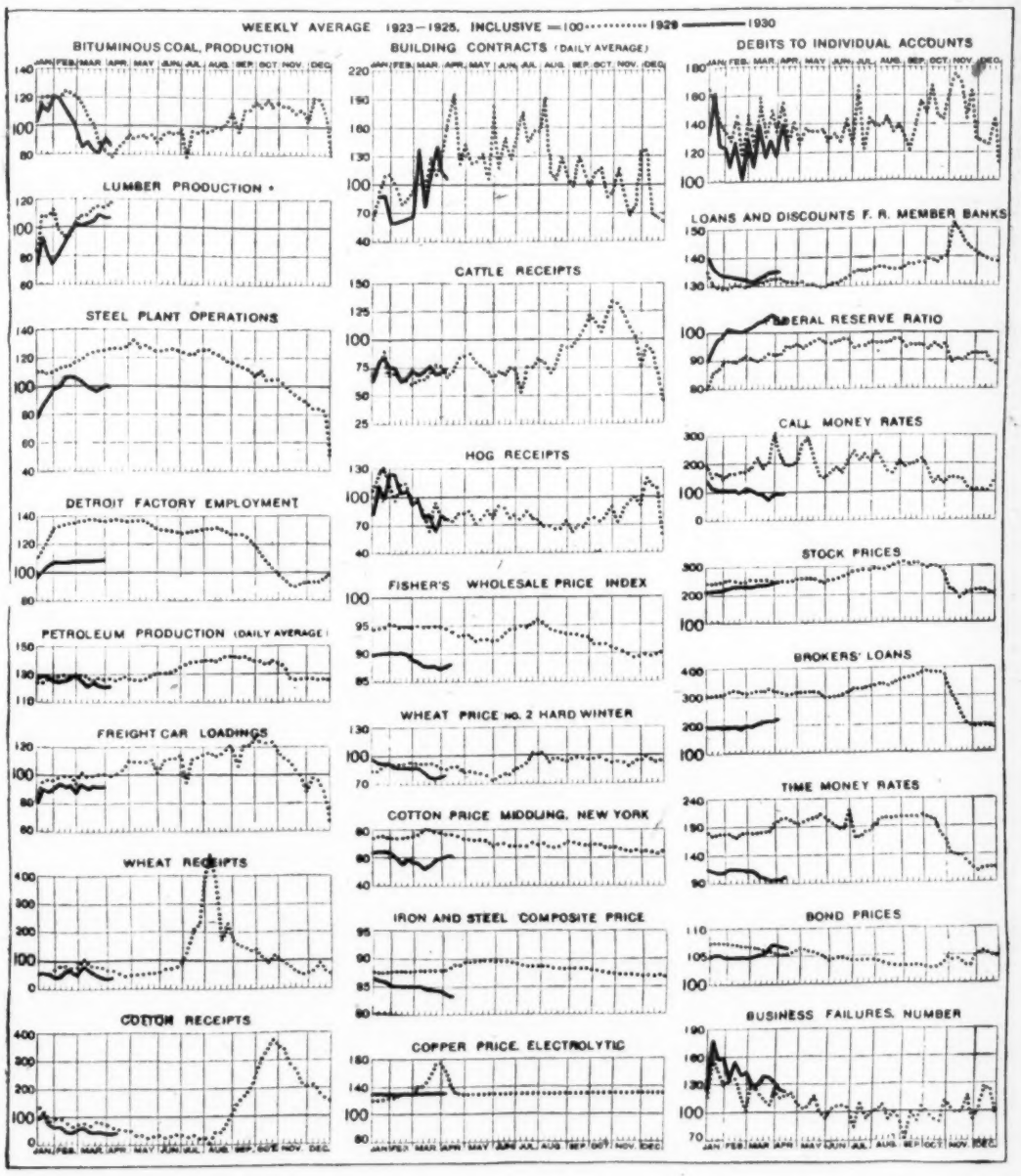
WEDNESDAY, APRIL 16

NEW YORK STOCK EXCHANGE

Previous 1929-1930 High	Low	Div.		Sales	High	Low	Close	Net Change
104⅞	7	....	Advance Rumely ...	500	19¾	19½	19½	....
119	15	....	do pf.	400	36	36	36	....
223⅜	77	3	Air Reduction	10.200	144	138⅛	139¾	— ¾
11¼	1	....	Ajax Rubber	1.300	2⅛	2⅛	2⅛	....
75½	35⅛	3	Allis Chalmers	2.600	66⅛	65⅝	65⅜	— ⅝
55½	40⅛	....	Am. Bosch Magneto	200	47	47	47	— 15⅛
101	70¼	7	Amer. Chain pf.		No sales today			
8⅞	2	....	Am.-La France		No sales today			
514	120	*4	Auburn	5,100	262¾	255¼	255¼	— ¾
104⅜	25	2	Bendix Aviation ...	5.000	53⅜	52⅛	52⅛	— ¾
136¾	37	3	Bohn Aluminum ..	400	64	62¾	62¾	— 1¾
86⅞	26	4	Borg-Warner	2.000	47⅝	46¾	47¼	+ ⅜
63⅛	8½	....	Briggs Mfg. Co.	8.900	21⅞	20¾	20¾	— ⅝
43½	17⅝	2	Briggs & Stratton..	100	33	33	33	....
73⅞	13	....	Brockway Motor ...	100	17⅞	17⅞	17⅞	+ ¼
22⅞	8⅛	1	E. G. Budd Mfg. ...	12.700	16¼	15	15½	— ¾
14⅝	7¾	1	Budd Wheel	2,300	14	13⅞	13⅝	— ⅛
74	25	1.60	Bullard	17,400	71¾	67	70½	+ 1⅞
78⅜	40¼	*3	Caterpillar Tractor.	1,200	77⅛	76⅝	76⅝	— 1¼
90¾	18	4.20	Checker Cab	29.000	52½	43½	44⅛	— 8⅞
47½	20⅞	....	Chicago Pneu. Tool.	2.800	34½	33⅛	33⅛	— ⅝
37	20⅞	8	Chicago Yellow Cab	400	30	30	30	+ ¾
135	26	3	Chrysler Corp.	26,100	40½	39⅛	39⅛	— 1⅝
61⅝	25	3	Clark Equipment ...	600	39	37⅛	39	+ 2
62⅝	18	2	Commercial Credit..	4.000	37⅝	36½	36⅞	+ ⅜
105¾	70	6.50	do 6½s pf.	20	93	93	93	— 2
76	22⅛	†1.60	Comm'l Invest. Trust	1.300	46½	45¾	46⅜	+ ⅜
87	84	6	do pf.	200	84	84	84	....
29⅜	5⅝	....	Continental Motors..	1.500	7	6⅞	7	+ ⅛
123¼	50	*3.50	Cutler-Hammer	1.500	87	85½	86¼	+ ¼
231	80	*4	Du Pont	11.200	142	140	140	— ¼
76¾	18	3	Eaton Axle & Spring	500	33¼	32¾	32¾	— ¼
174	50	6	Electric Auto-Lite..	2.900	113	109¼	109¼	— 1¼
104½	55	5	Electric Stor. Battery	700	75⅛	74¾	74⅝	— ⅜
22½	3¼	....	Emerson Brant A...	300	5⅛	5	5	— ¼
73¾	15	2.50	Evans Auto Load ..		No sales today			
22⅜	5	.80	Federal Motors	100	11⅝	11⅝	11⅝	— ⅛
13¾	6	.64	Fifth Avenue Bus...	20	10	10	10	— ½
37	24½	1.60	Firestone T. & R. ..	600	27⅝	26¾	27	— ½
89⅜	79¾	6	do pf.	700	83½	83	83	....
20⅛	2⅛	....	Fisk Rubber	1.600	5	4¾	4⅞	....
72½	8	....	do 1st pf.	40	18½	18½	18½	....
33⅞	5	....	Gabriel Company ..	100	10	10	10	....
25	3	....	Gardner Motor	1,300	5¾	5½	5½	— ⅜
95⅜	55¼	1.60	General Electric ...	110,900	93	90	90⅛	— 3⅛
91¾	33¼	*3	General Motors	89.300	52⅜	51	51	— 1⅜
126½	112	7	do 7s pf.	600	123½	123⅛	123½	....
64⅛	26	*2	Glidden Co.	2,300	35⅜	34¼	34⅞	+ ⅝
106⅛	95	7	do pf.	20	103	103	103	....
105¾	38¼	4	Goodrich	9.800	51	47⅞	49½	— 2⅜
115⅞	95½	7	do pf.	100	101½	101½	101½	+ ⅝
154½	60	5	Goodyear T. & R. ..	3,900	91¾	90⅛	90⅞	— 1¼
104⅞	86	7	do pf.		No sales today			
54	7⅜	....	Graham-Paige Motor	2.800	11	10¼	10⅞	— ¼
68⅛	5½	....	Hayes Body	6.200	13½	12⅜	12⅝	— ¾
33½	21¼	1.80	Hercules Motor		No sales today			
52¾	13	2	Houdaille-Hershey B	1,800	27⅛	26½	26½	+ ¾
93½	38	5	Hudson Motor Car..	6,500	54	52½	52½	— 1⅜
22	18	2	Hupp Motor Car....	23.100	23¾	21⅜	22	— 2½
32½	3½	....	Indian Motocycle...	3,700	10¾	10¼	10½	— ¼
14¼	2	....	Intercon. Rubber ...	100	6¼	6¼	6¼	— ¾
142	65	2.50	Interna. Harvester..	14.200	115¾	112¼	113	+ ⅝
145	137	7	do pf.	300	142½	142½	142½	— ¾
242¾	90	3	Johns-Manville	8.200	131	128⅝	129	— ¼
16½	1½	....	Jordan Motor Car..	1.600	4⅜	4⅛	4⅛	— ¼
24	3	....	Kelly-Springfield ...	1.500	5½	5⅛	5⅛	— ⅜
24	3	....	do 6s pf.		No sales today			
94⅞	16	....	do 8s pf.	10	34½	34½	34½	— ½
59¾	18⅝	2	Kelsey-Hayes	1.600	38⅛	37½	37½	....
25	5	....	Lee Rubber & Tire..		No sales today			
45⅜	39	2.60	Link Belt		No sales today			
108⅞	22	2	Ludlum Steel	1.900	40⅞	39⅛	40	+ 1
114¾	55⅛	6	Mack Trucks	1.000	84	82½	83¾	+ ¾
89⅞	30	*2	Marlin Rockwell		No sales today			
104	19	2	Marmon	1.200	28⅜	28¼	28¼	— 1
18	2½	....	Martin Parry		No sales today			
34⅞	9	2	Mengel	8.300	21⅞	19½	20½	+ ⅝
122⅞	44	2.50	Michigan Steel	600	70⅞	70	70	— ¼
53	37	3	Midland Steel	500	42½	41⅞	41¾	— ¾
5⅜	3⅞	....	Miller Rubber		No sales today			
16½	1⅛	....	Moon Motors	9,500	12⅛	11½	11½	— ⅝
31¾	3¼	....	Moto Meter G. & E.	1.800	8⅛	7½	7¾	— ¼
142	36	2	Motor Products	400	72½	71¼	71¼	— 3½
55⅛	21	3	Motor Wheel Corp...	200	32¼	32	32	— ¼
81⅞	10	....	Mullins Mfg.	1.300	19½	19	19	— ¼
100⅞	14⅞	‡2	Murray Corp.	6.400	24	22½	22½	— 1¼
118⅞	40	6	Nash Motors	6.200	52⅞	51⅝	51⅞	— ⅝
41⅞	14⅝	1.50	National Acme	500	23	22⅞	22⅞	— ⅜
16¼	⅝	....	Norwalk T. & R.	1.000	3½	3	3	— ¼
25	9	....	do pf.		No sales today			
10⅞	2½	....	Omnibus Corp.	200	6⅞	6⅞	6⅞	+ ⅛
55	22¼	2.50	Otis Steel	700	36	35⅛	36	+ 1
32¼	13	1	Packard Motor Car..	32,600	20⅜	20⅛	20⅛	— ¾
26⅛	15½	1.50	Parmalee Transport	7,800	21⅝	20	20¼	— 1¾
22½	5⅛	....	Peerless Motor Car..	500	9¾	9½	9½	— ¼
37⅝	18	....	Pierce-Arrow	500	28½	28½	28½	— 1
87½	67¾	6	do pf.		No sales today			
30¾	20	1.50	Pure Oil	1,300	25⅞	25½	25½	— ⅜
58½	28	2.60	Raybestos Manhattan	26,100	56⅞	54¼	56	+ 1¼
31⅞	10⅛	.80	Reo Motors	1,700	13½	13⅛	13⅛	— ⅛
12¼	3⅝	....	Reynolds Spring	400	5⅝	5¼	5¼	— ⅛
22½	9¾	1.20	Seagrave		No sales today			
31⅞	19	1.40	Shell Union Oil	1,100	23⅞	23¾	23¾	....
45	21	2	Sinclair Oil	8,100	30½	29⅞	29⅞	— ¼
73	13⅛	1	Sparks-Withington .	5,200	29⅜	28½	28¾	— ¼
66⅜	20⅛	....	Spicer Mfg. Co.	2,000	29⅞	26½	29⅞	— ⅛
55⅞	38	3	do pf.		No sales today			
81⅞	51½	2.50	Stand. Oil of Cal. ..	4.500	71½	70½	70½	— ⅛
83	48	*1	Stand. Oil of N. J. ..	46,900	79⅝	77½	78	+ ¼
48⅛	31¼	1.60	Stand. Oil of N. Y...	7,000	36⅜	36	36⅛	....
77	30	*3.50	Stewart-Warner Spd.	2,700	44	43	43	+ ⅝
98	38¼	5	Studebaker Co.	1,900	41¼	40⅞	41	— ¼
98	38¼	5	do pf.		No sales today			
39¼	33½	2.40	Thompson Products.	1,300	37½	37	37	— ½
34⅜	11½	.80	Timken Detroit Axle	1,200	20¼	20	20	— ¼
139⅜	58½	3	Timken Roller Bear.	7,200	87½	85	85½	— 2⅛
63	30	2.50	Trico	500	39¾	39⅝	39⅝	....
243⅜	92½	*6	U. S. Ind. Alcohol ..	9,600	93⅝	88¼	89	— 3⅞
65	15	....	U. S. Rubber	2,700	33¾	33	33	— 1
92½	40⅛	....	do 1st pf.	700	61¾	61⅛	61¼	— ¼
42⅞	15	1	Warner Quinlan ...	12.100	24½	21	22¼	— 1⅝
67¾	36½	2	Westinghouse A. B.	1.000	46⅞	46⅛	46½	— ⅛
53½	27¼	2	White Motors	500	41	40½	40½	— ¼
62	12⅝	2	do B	600	26⅛	25¾	25¾	— ¼
35	5¼	1.20	Willys-Overland	11,800	8⅞	8⅝	8⅞	+ ⅛
103	65	7	do pf.	200	80	75	80	— 1
88	61¾	4	Yale & Towne	100	73½	73½	73½	— 1
51¼	7½	....	Yellow Tr. and C. B	8.600	28	27	27½	+ ⅛
59¾	33½	3	Young(L.A.)Spr.&W.		No sales today			

*And extra. †And 6 per cent. in stock. ‡And stock.

U. S. Charts Week's Business Progress



Above is reproduced this week's chart of business trends issued yesterday by the Department of Commerce at Washington. These charts are now appearing regularly in Automotive Daily News.

NEW YORK CURB EXCHANGE

Sales		High	Low	Close	Net Chge
28600	Cities Service..	41¼	40¾	41¼	+ ¼
400	do pf	92¾	92⅜	92¾	....
	Con Dia Fibre.		No sales		
10100	Cord Corp	15¾	15¼	15¼	— ⅜
100	Doehler D C ...	18	18	18	....
700	Durant Motor ...	5⅜	5⅛	5⅛	— ¼
	Fageol Motor...		No sales		
	Fedders		No sales		
	Federal Mogul..		No sales		
400	Federal Screw..	40½	40¼	40¼	— ¾
	Fiat		No sales		
3200	Ford Canada...	38½	35½	36½	— ¾
1200	Ford France....	12	11⅜	12	....
3000	Ford Ltd	19½	19⅛	19½	....
100	Franklin Mfg...	21	21	21	— ½
	Gen Tire & Rub		No sales		
	Gr'nf'ld T & D.		No sales		
	Hall Lamp		No sales		
	Henney		No sales		
	Hood Rubber ..		No sales		
	India Tire		No sales		
	Isotta Fras		No sales		
	Jaeger		No sales		
	Lakey		No sales		
	McQuay Norris.		No sales		
1300	Nat Rub Mach.	26⅛	25¼	26	— ¾
800	Paramount Cab.	8⅞	8	8⅛	⅛
	Perfect Circle..		No sales		
	Pines Winter...		No sales		
300	Pitt Pl Glass...	57	56¾	57	¾
	Rolls Royce Am		No sales		
	Ross Gear		No sales		
	Safe T Stat....		No sales		
700	Seiberling	11½	11½	11½	¼
210	Smith A O.....	235¾	230¾	235¾	3½
	Sparks With....		No sales		
600	Stutz Motor....	3¼	3⅛	3⅛	— ⅛
1600	Thermoid Co...	27	26	27	— ½
	Triplex		No sales		
300	Tung Sol	22¼	22	22¼	¼
	U S Asbestos...		No sales		
300	Watson, J W...	3⅞	3⅞	3⅞	⅛
500	Wayne Pump...	14⅜	14⅛	14⅛	....
	West Auto		No sales		
	Yellow Taxi N Y		No sales		

NEW YORK OVER-THE-COUNTER

Div.		Bid	Asked
6	American Hard Rubber..	60	63
....	Dixon (J) Crucible.....	168	..
3.50	Doehler Die Casting.....	37½	..
7	do pf	85	..
....	Eisemann Magneto	22	..
7	do pf	95	..
....	Rolls Royce Am.....	..	13
....	do pf	13	17
....	Splitdorf Beth Elec.....	5¼	6

CHICAGO STOCK EXCHANGE

Sales		High	Low	Last
50	Acme Steel	71	71	71
850	Ainsworth Mfg Co..	33	31	31½
100	Allied Motor Ind...	17¾	17¾	17¾
50	Allied Products	46¼	46¼	46¼
800	Auburn Auto	262	256	258
2800	Bendix Aviation	55¼	52⅜	52⅜
6750	Borg-Warner	48	46¾	47
300	Chicago Yellow Cab	29½	28¾	28¾
2540	Cord Corp	16	15¼	15½
400	Houdaille Hershey A	28¾	28¾	28¾
800	do B	27	26⅝	26⅝
50	McQuay Norris	48	48	48
3200	Modine	72½	71	71¾
50	Muncie Gear A.....	3½	3½	3½
100	do B	2½	2½	2½
300	Muskegon M S.....	21	20¾	21
100	Noblitt Sparks	54½	54½	54½
500	Perfect Circle	44	43	44
1750	Pines Winterfront..	41	40	40½
1050	Ross Gear	33¾	32	33¾
50	Sterling Mot Truck.	26	26	26
415	Waukesha Motor ..	140	130	137½

CLEVELAND STOCK EXCHANGE

Sales		High	Low	Last
25	General Tire	149	149	149
30	Glidden pr pf.....	103	103	103
455	India Tire	25½	23⅜	25
190	Jaeger Machine	28	28	28
55	Packard Electric....	24½	24½	24½
340	Seiberling Rubber...	11½	11	11
10	Thompson Products.	37¼	37¼	37¼

DETROIT STOCK EXCHANGE

Sales		High	Low	Last
200	Baldwin Rubber	4⅛	4⅛	4⅛
1023	Bower Roller B.....	17½	17	17⅛
485	Detroit Electric Bus	7½	7½	7½
255	Excello	19¼	19¼	19¼
250	Federal Mogul	18½	18½	18¼
40	Federal Screw	41	40½	40½
988	Ford of Canada....	38½	35½	38½
510	Federal Mot Truck.	11⅞	11⅜	11⅜
6445	G R Metalcraft.....	11	10	10
805	Hall Lamp	15	14⅜	14⅜
100	Houdaille Hershey B	26½	26½	26½
100	Hutto Eng	7	7	7
1435	Jackson M S.....	13¼	12	13¼
720	Motor Bankers	23¾	23½	23¾
106	Parker Rustproof...	124	124	124
2000	Packard	20¼	20¼	20¼
100	Reo Motor vtc.....	13¼	13¼	13¼
972	Timken Det Axle..	20¼	20¼	20¼
557	Universal Products.	26¾	26¼	26¾

FORD OF CANADA TO HOLD ANNUAL MEETING MAY 19

Detroit, April 17.—The annual meeting of the Ford Motor Company of Canada has been called for May 19 at the company's offices at East Windsor, Ont. April 30 has been fixed as the record date for determination of shareholders entitled to vote at the meeting. Only registered holders of Closs B shares are entitled to vote. Appointment of proxy must be deposited at the company's office not later than forty-eight hours before the annual meeting.

WILLYS-OVERLAND EARNS PROFIT IN FIRST QUARTER

Toledo, April 17.—Willys-Overland Company and subsidiaries report for the quarter ended March 31, 1930, net profit of $136,443 after taxes, depreciation and interest, equivalent to 93 cents a share on 146,017 shares of 7 per cent. preferred stock. In first quarter of 1929 company reported profit of $2,028,020 after depreciation and interest, but before Federal taxes.

The company issued the following statement:—

"Although the financial position of Willys-Overland is sound the directors decided in view of the decreased earnings to pass the dividend on the common stock until general conditions in the industry are more clearly re-established."

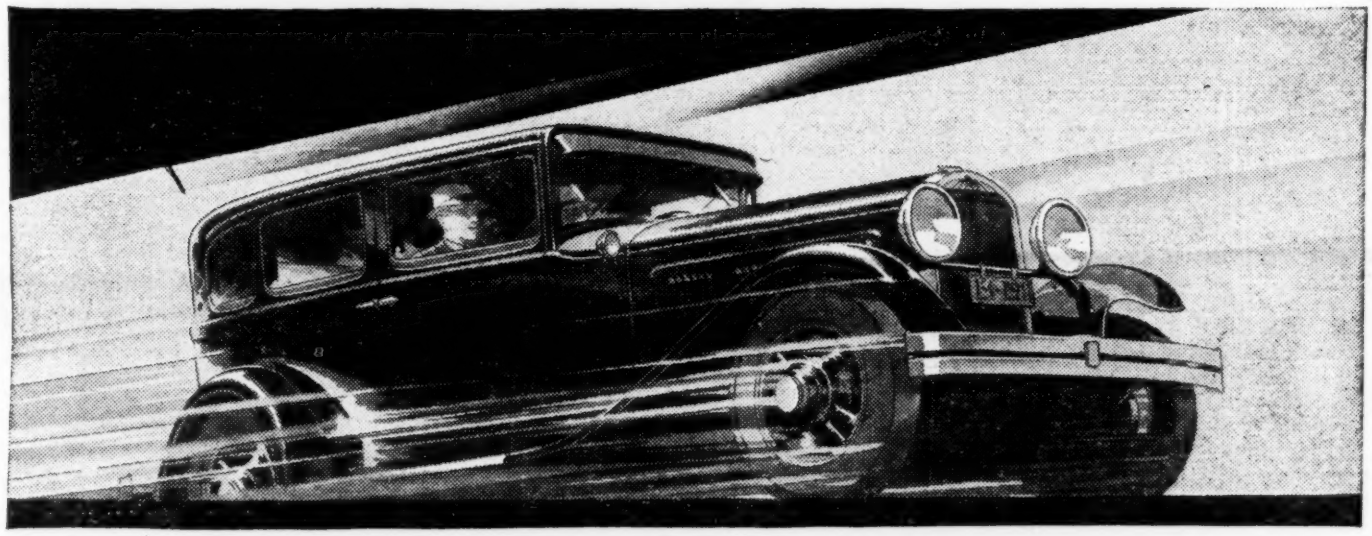
Cash on hand March 31 totaled $6,000,000.

HUPP REPORTS PROFIT FOR FIRST 3 MONTHS

New York, April 17.—The Hupp Motor Car Corporation reports for the quarter ended March 31, 1930, net profit of $66,749 after depreciation and Federal taxes, equivalent to 4 cents a share (par $10) on 1,512,091 shares of common stock. This compares with $1,501,595, or $1.10 a share on 1,362,498 common shares, in the first quarter of 1929.

Current assets on March 31, last amounted to $20,701,317, against current liabilities of $3,725,708.

PRESENTING HIGHER STANDARDS OF EIGHT-CYLINDER PERFORMANCE.....



BRILLIANT NEW CAR MAKES WILLYS-OVERLAND FRANCHISE MORE VALUABLE THAN EVER

STANDARD SEDAN
$1295

4-pass. Coupe, $1245; 4-pass. Coupe De Luxe, $1345; Sedan De Luxe, $1395. Prices f. o. b. Toledo, O., and specifications subject to change without notice.

● In the new Willys-Eight, 120-inch wheelbase, Willys-Overland presents a car which combines external beauty, interior roominess and luxury new to its price class, with advanced eight-cylinder performance capabilities. Exhaustive tests have proved Willys superiority over other Eights in speed, pick-up, hill climbing and gas economy. Alert dealers will capitalize on the large demand for just such a car as the new Willys-Eight. Write or wire for franchise particulars.

WILLYS-OVERLAND, INC., TOLEDO, OHIO
WILLYS-OVERLAND SALES CO., LTD., TORONTO, CANADA

WILLYS EIGHT